

F- Discipline work program

APPROVED BY

by the decision of the Academic Council of the USU Institute of Medicine, Ecology and Physical Culture 19\_«\_\_06\_\_\_», 2019 Record No. 10/210\_\_\_

# **EDUCATIONAL PLAN**

Disciplines	General surgery. Introduction to the specialty
Faculty	Medicine named after T.Z. Biktimirova
Name of department	General and operative surgery with topographic anatomy and a course of dentistry
Course	2-3

Direction (specialty) 31.05.01 General medicine  (code of direction (specialty), full name)  Orientation (profile): is not provided  full name  The form of training full-time_
Date of introduction into the academic process at Ulyanovsk State University « 1 » of September 2019
Revised at the Department meeting, Record No1 of30.08. 2020

Full name	Abbreviation of Department	Position, Academic,
SMOLKINA A.V.	surgery with topographic	degree, title Head of the Department MD, Professor
Makarov S.V.	anatomy and the course of	PhD, senior Lecturer

AGREED  Chair of the department of general and operative surgery with topographic anatomy and the course	AGREED  Head of graduating department hospital therapy
of dentistry, developing discipline Smolkina A.V/ (Signature) (Name) «_17_»062019_г.	W. Chee / Vize-Hrypynova M.A. / (Signature) (Full name) (Full name) (Full name) / Une 2019

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#### 1. The course aims and objectives

The objectives of mastering the discipline:

introducing students to the specialty, determining the place of surgery among all medical disciplines; teach a student to apply knowledge of anatomy, physiology and other fundamental disciplines to solve specific practical clinical problems with an emphasis on children, master the basic principles of diagnosis, treatment and prevention of surgical diseases and perform general medical manipulations with childhood characteristics.

Studying the fundamentals of modern clinical surgery forms clinical thinking and allows the student to subsequently successfully understand not only the diagnosis and treatment of certain surgical diseases, but also master other medical subjects.

The focus is on the characteristics of children's age of patients.

Tasks of mastering the discipline "General Surgery. Introduction to the specialty " Acquaintance of students with the structure of surgical institutions (clinic, general surgery hospital, tuberculosis dispensary, children's clinic, children's surgical department), equipment and equipment of the surgical room. Familiarization with the work of doctors on surgical admission by a patient with an emphasis on childhood. Mastering the basic principles of ethics and deontology with both children and their parents, without which it is impossible to master the art of treating patients. Focus students on the tasks of surgery; distinguish a group of the most common diseases and teach emergency care for surgical patients with childhood problems.

In this case, the main objectives of the discipline are to teach the student:

- purposefully ascertain the patient's complaints and the history of the disease, conduct a physical examination of the surgical patient (examination, palpation, percussion, auscultation), outline a plan for the examination of the surgical patient;
- organize surgical activities in compliance with the rules of asepsis in the premises of the surgical hospital and clinic;
- identify the main surgical syndromes and diagnose the main types of purulent-septic diseases (etiology, pathogenesis, classification, clinic, the basic principles of diagnosis and treatment of the most common surgical diseases);
- training students to provide first aid in case of emergency;
- familiarization of students with the principles of organization and operation of medical institutions of various types;
- the formation of skills for studying scientific literature and official statistical surveys;
- the formation of communication skills with the patient, taking into account ethics and deontology, depending on the identified pathology and characterological characteristics of the patients;
- the formation of the student's communication skills with the team, with pediatric patients and their parents.

#### 2. Place of the course in the curriculum

In accordance with the Federal State Educational Standard of Higher Education, the discipline B1. "General surgery. Introduction to the specialty" refers to the basic part of the specialty disciplines on May 31, 01 "Medicine" (level of specialty) of higher medical education and is studied in the fourth and fifth semesters. Mastering discipline is based on knowledge, skills and skills, formed by previous disciplines and practices:

Biology: knowledge: general patterns of origin and development of life; anthropogenesis and human ontogeny; laws of genetics, its importance for medicine; regularities of heredity and variability in individual development as a basis for understanding the pathogenesis and etiology

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of hereditary and multifactorial human diseases; skills: use physical and biological equipment, work with magnifying equipment (microscopes, optical and simple loops); to draw up a family pedigree outline based on interviewing patients; skills: to determine the type of inheritance of diseases of internal organs.

Biochemistry: knowledge: the chemical and biological essence of processes occurring in a living organism, at the molecular and cellular levels; structure and biochemical properties of the main classes of biologically important compounds, the main metabolic pathways of their transformation; the role of cell membranes and their transport systems in metabolism in the body; safety rules and work in chemical and biological laboratories, with reagents, instruments, animals; skills: a substantiation of the standard of biochemical laboratory researches at various diseases of internal organs; skills: interpreting the results of the most common methods of laboratory biochemical research.

Human Anatomy: knowledge: anatomical and physiological features of the structure and development of the human body; skills: to correlate the topography of internal organs with the projection on the surface of the human body in the clinical study of the patient; skills: to determine the projection of internal organs on the surface of the patient's body.

Histology, embryology, cytology: knowledge: the basic laws of development and life activity of the human body on the basis of the structural organization of cells, tissues and organs; histofunctional features of tissue elements; skill: analyze the histological state of various cellular, tissue and organ structures of a person; work with magnifying equipment (microscopes, optical and simple loops); skills: to interpret the results of histological examination of biopsy material of normal organs.

Normal physiology: knowledge: the basic physical phenomena and patterns underlying the processes occurring in the human body; functional systems of the human body, their regulation and self-regulation under the influence of the environment in the norm; skill: orientation in the mechanisms of functional processes in the human body; skills: interpreting the results of normal instrumental and laboratory research methods.

Educational practice "Care for the sick": knowledge: types of sanitary treatment of patients, types of fevers, features of observation and care for patients with diseases of various body systems; skills: medical treatment of a patient when entering a hospital and during a hospital stay, changing the bed linen and bed linen of a patient, treatment of decubitus; care for patients of different age, suffering from diseases of various organs and systems, their transportation; thermometry, daily diuresis control, collection of biological material for laboratory studies, anthropometry, setting of different types of enemas, feeding of severe patients; disinfection and pre-sterilization preparation of medical instruments, materials and means of care for patients; skills: care for patients, taking into account their age, nature and severity of the disease; care for seriously ill and agonizing patients.

#### 3. Proposed results:

The study of the discipline "General Surgery. Introduction to the specialty "as part of the development of the educational program is aimed at the formation of the following general professional and professional competencies in students:

№	Compet	Content	of	As	a result	of	studying	the	academic	discipline,	students

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	ency	competence	should:		
π/	Index	(or part thereof)	know	how to	wield
	mucx	(or part thereof)	KIIOW	now to	Wiciu
1 1	OPC-8	Readiness for medical use of drugs and other substances and their combinations in solving professional problems.	Medicinal products drugs, applied in the treatment surgical pathology.	Assign medical drugs with treatment studied pathology	The technique of subcutaneous and intramuscular injections
2	OPC- 11	Readiness for the use of medical products provided for by the order of medical care.	The main modern medical products, instruments and apparatus	Choose the right medical products for the necessary surgical care	The main medical products and use them correctly
3	PC-5	Readiness to collect and analyze patient complaints, data of his anamnesis, results of examination, laboratory, instrumental pathologanatomical and other studies in order to locate the condition or establish the fact of presence or absence of disease.	Diagnostic value of the changes revealed in the clinical study of the patient, the use of laboratory-instrumental diagnostic methods.	Conduct a survey, physical examination of the patient; interpret the results of laboratory-instrumental diagnostics and use it to substantiate the diagnosis and choose surgical tactics.	By the methods of clinical investigation of the patient surgical profile, interpretation of
4	PC-6	The ability to identify patients in the main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Health Problems - X revision adopted by the 43rd World	Basic pathological state, symptoms, syndromes diseases, nosological forms in According to ICD.	Identify key pathological state, symptoms, syndromes diseases, nosological forms in According to ICD in patients with the studied pathology.	-

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		Health Assembly,			
		Geneva, 1989.			
5	PC-8	The ability to	Management	Identify tactics of	-
		determine the tactics	Tactics patients	patient with studied	
		of managing	with	nosological and	
		patients with	studied	forms.	
		various nosological	nosological		
		forms.	and forms.		

# 4. GENERAL DIFFICULTY OF DISCIPLINE

4.1. The amount of discipline in credit units - 6

4.2. By types of academic work (in hours) - 216

J J1	Number of hours (training form - full-time)							
Kind of study	All according	1						
Č	to plan	semester number	semester number					
		4	5					
Contact work enrolled with the teacher in accordance with MPS	126	-	-					
Auditory lessons:	126	72	54					
lectures	36/36*	18	18					
Seminars and workshops	90/90* of them in an interactive way 18	54	36					
Laboratory work, workshops	-	-	-					
Independent work	54	36	18					
The shape of the current knowledge of the control and monitoring of independent work: testing, essay, presentation, problem solving	-	-	-					
Course work	-	-	-					
Forms intermediate certification. (Test). (Exam).	36	-	36					
Total hours on discipline	216	108	108					

<sup>\*</sup> 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.

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

		Types	of studie	es			
		Audit	ory lesso	ns	Take-	Indep	The shape
Name and sections and topics	Total	Lek- tion	Cal- practi cal classes , semin ar	Labor a- Tornio works, practic al Kum	ment in INTER - hydroc hloric ktiv- form	enden t work	of the current control of knowledg
one	2	3	4	5	6	7	
4 semester							
Section 1. Antiseptic and Aseptic							
Theme 1. History of the development of surgery. Great surgeons. Deontology.	6		3			3	poll
Theme 2. Antiseptics, types, antiseptic preparations and their use.	8	2	3			3	Tests, poll
Theme 3. Aseptics, sources of infection, prevention of airborne and drip infections. Organization of the surgical department. Preparing the surgeon's hands for surgery.	7	1	3			3	Tests, poll
Theme 4. Asepsis. Prevention of contact infection. Sterilization of tools, material and linen. Prevention of implantation infection. Sterilization of suture and plastic material.  Section 2. Anesthesia and resuscitation.	7	1	3			3	Tests, poll
Section 2. Anesthesia and resuscital	LIOII						
Theme 5.  General issues of anesthesiology. General anesthesia methods, indications, contraindications and complications.	8	2	3			3	Tests, poll

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Methods of local anesthesia.							
Theme 6.	4	-	3		2	1	Tests, poll
Resuscitation in violation of the vital functions of the body.							
Section 3. Bleeding, hemostasis, blo	ood tran	sfusion,	blood su	bstitution			
Theme 7.	4		3		2	1	Tests, poll
Bleeding and hemorrhage. Concept, classification, first aid and treatment. Methods for stopping external bleeding.							
Theme 8.	6		3			3	Tests, poll
Clotting disorder in surgical patients and methods for their correction. Endogenous intoxication and water-electrolyte disturbances in surgery. The principles of its correction							
Theme 9.  Blood type and Rh factor.  Determination of blood type.	5	1	3			1	Tests, poll
Theme 10.	7	1	3			3	Tests, poll
Transfusion of blood components and blood substitutes. Errors and complications. Donation							
Section 4. Thermal damage	T						
Theme 11. Thermal and chemical burns.	5	1	3			1	Tests, poll
Theme 12.	5	1	3			1	Tests, poll
Cold injury and electrical injury.							

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	1	1	1			Г	
Theme 13.	6	2	3			1	Tests, poll
Wounds. The wound process.							
Treatment of wounds, its types,							
types of wound healing. Infected							
wounds.							
Theme 14.	6		3		2	3	Tests, poll
Desmurgy.							
Section 6. Fundamentals of surgical	patholog	gy and r	nethods fo	or its corre	ction		
Theme 15.	8	2	3			3	Tests, poll
Parasitic surgical diseases.							
Tarastic surgical diseases.							
Theme 16.	6	2	3			1	Tests, poll
Fundamentals of surgical							
oncology. Tumors							
Theme 17.	5	1	3			1	Tests, poll
Malformations.							
Theme 18.	5	1	3			1	Tests, poll
Plastic and reconstructive surgery.							
Transplantology.							
Total per semester	108	18	54		6	36	tickets
5 semester							
3 semester							
Section 7. Damage Surgery Basics							
Theme 19.	5		2		2	3	Tests, poll
Examination of a surgical patient.							
	5	2	2			1	Tosts moll
Theme 20.	3	2	\ \( \times \)			1	Tests, poll
Bone fractures. Treatment of bone							
fractures.							
Theme 21.	3		2			1	Tests, poll
Dislocations of the joints. Joint							
treatment and reduction.							
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Thomas 22 Domas as to soft tissues	5	2	2			1	Tosts poll
Theme 22. Damage to soft tissues. Syndrome of long compression and syndrome of positional compression.	3	2	2			1	Tests, poll
Theme 23.	4		2		2	2	Tests, poll
Transport immobilization.							
Theme 24.	5	2	2		2	1	Tests, poll
Injuries to the head, chest and abdomen.							
Section 8. Fundamentals of puruler	it-septic s	urgery	-1	L	L		
Topic 25.	5	2	2			1	Tests, poll
Acute purulent infection. General questions, problems. Purulent diseases of the skin and subcutaneous tissue.							
Theme 26.	3		2			1	Tests, poll
Acute purulent diseases of soft tissues and glandular organs, lymph nodes.							
Theme 27.	5	2	2		2	1	Tests, poll
Acute purulent-destructive diseases of the abdomen.  Purulent inflammatory diseases of							
the serous cavities.							
Theme 28.	3		2			1	Tests, poll
Acute purulent diseases of bones, joints, hands and feet.							
Theme 29.	5	2	2			1	Tests, poll
Sepsis, anaerobic clostridial and non-clostridial soft tissue infections.							
Topic 30.	4	1	2			1	Tests, poll
Acute specific infection							
-	•	•	•	•	•	•	•

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Theme 31.	4	1	2		1	Tests, poll
Chronic specific infection						
Section 9. Circulatory Surgery				I		
Theme 32.	5	2	2		1	Tests, poll
Basics of circulatory disorders						
surgery(necrosis, gangrene, ulcers and fistulas).						
Theme 33	3		2		1	Tests, poll
Insufficiency of blood and lymph circulation of the extremities.						
Section 10. Surgery		l	<u> </u>			
Theme 34. Surgery. Preoperative preparation of patients.	3	1	2			Tests, poll
Topic 35.	3	1	2	2		Tests, poll
The postoperative period.						
Theme 36.	2		2	2		Tests, poll
Disease history. Diagnostic						
algorithm. Epicrisis.						
<u>EXAM</u>	36					tickets
<u>Total per semester</u>	108	18	36	12	18	
All for discipline	216	36	108	18	54	

# **5. COURSE CONTENT**

#### Theme I

History of the development of surgery. Great surgeons. Deontology.

#### Theme 2

Antiseptics, types, antiseptic preparations and their use.

# Theme 3.

Aseptics, sources of infection, prevention of airborne and drip infections. Organization of the surgical department. Preparing the surgeon's hands for surgery.

# Theme 4.

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Asepsis. Prevention of contact infection. Sterilization of tools, material and linen. Prevention of implantation infection. Sterilization of suture and plastic material.

Theme 5.

General issues of anesthesiology. General anesthesia methods, indications, contraindications and complications.

Methods of local anesthesia.

Theme 6.

Resuscitation in violation of the vital functions of the body.

Theme 7.

Bleeding and hemorrhage. Concept, classification, first aid and treatment. Methods for stopping external bleeding.

Theme 8.

Clotting disorder in surgical patients and methods for their correction. Endogenous intoxication and water-electrolyte disturbances in surgery. The principles of its correction

Theme 9.

Blood type and Rh factor. Determination of blood type.

Theme 10.

Transfusion of blood components and blood substitutes. Errors and complications. Donation

Theme 11.

Thermal and chemical burns.

Theme 12.

Cold injury and electrical injury.

Theme 13.

Wounds. The wound process. Treatment of wounds, its types, types of wound healing. Infected wounds.

Theme 14.

Desmurgy.

Theme 15.

Parasitic surgical diseases.

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Theme 16.
Fundamentals of surgical oncology. Tumors
Theme 17.
Malformations.
Theme 18.
Plastic and reconstructive surgery. Transplantology.
Total per semester
Theme 19.
Examination of a surgical patient.
Theme 20.
Bone fractures. Treatment of bone fractures.
Theme 21.
Dislocations of the joints. Joint treatment and reduction.
Theme 22. Damage to soft tissues. Syndrome of long compression and syndrome of positional compression.
Theme 23.
Transport immobilization.
Theme 24.
Injuries to the head, chest and abdomen.
Topic 25.
Acute purulent infection. General questions, problems. Purulent diseases of the skin and subcutaneous tissue.
Theme 26.
Acute purulent diseases of soft tissues and glandular organs, lymph nodes.
Theme 27.
Acute purulent-destructive diseases of the abdomen.

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Purulent inflammatory diseases of the serous cavities.

Theme 28.

Acute purulent diseases of bones, joints, hands and feet.

Theme 29.

Sepsis, anaerobic clostridial and non-clostridial soft tissue infections.

Topic 30.

Acute specific infection

Theme 31.

Chronic specific infection

Theme 32.

Basics of circulatory disorders surgery(necrosis, gangrene, ulcers and fistulas).

Theme 33

Insufficiency of blood and lymph circulation of the extremities.

Theme 34. Surgery. Preoperative preparation of patients.

Topic 35.

The postoperative period.

Theme 36.

Disease history. Diagnostic algorithm. Epicrisis.

## 6. TOPICS practical and seminars

Topic 1. History of the development of surgery. Great surgeons. Deontology. Questions:

- 1. Epoch of the development of surgery.
- 2. The development of surgery until the 19th century.
- 3. The ideological precursors of antiseptics (L. Pasteur, N. And. Pirogov) and its creators (I. Zemmelweis, D. Lister).
  - 4. The role of Pirogov N.I. in the development of surgery.
  - 5. The development of surgery in the 19-20 centuries.
  - 6. The development of surgery in Russia.
  - 7. The current stage of development of surgery.
  - 8. Deontology the concept.
  - 9. Ethical behavior with patients and doctors.

Topic 2. Antiseptic, its types, antiseptic preparations and their use.

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#### Questions:

- 1. Antiseptic. Definition of the concept.
- 2. Types of antiseptics (mechanical, physical, chemical, biological).
- 3. The mechanism of action of antiseptics,
- 4. Characteristics of basic antiseptics and antibiotics.
- 5. Methods of using antiseptic preparations.
- 6. Rational antibiotic therapy. Complications of antibiotic therapy and their prevention.
- 7. Enzymotherapy of surgical infection. Used enzymes.
- Topic 3. Asepsis, sources of infection, prevention of airborne and drip infections. Organization of the surgical department. Preparing the surgeon's hands for surgery.

#### **Questions:**

- 1. Asepsis. Definition of the concept. The value of asepsis for surgery in modern conditions.
- 2. Sources of infection. Endogenous and exogenous infections (airborne, contact, implant). The concept of nosocomial, intrahospital, nasocomial infection.
  - 3. Organization of the surgical department, its layout, the main premises and their device.
  - 4. Chambers, dressing, their equipment and cleaning.
  - 5. Operational unit, its device and equipment. Cleaning in the operating room, its types.
  - 6. The behavior of staff and visitors in the operating room.
  - 7. Device and equipment of the surgical clinic office.
- 8. Orders and instructions of the Ministry of Health of the Russian Federation on the prevention of intra-hospital infection. The essence of the orders.
  - 9. Training of hands of the personnel for operation.
- Topic 4. Aseptic. Prevention of contact infection. Sterilization of tools, material and linen. Prevention of implantation infection. Sterilization of suture and plastic material.

#### Questions:

- 1. Prevention of contact infection. The concept of contact infection, its sources.
- 2. Surgical instruments: classification, features of their device, sterilization and care for them.
  - 3. Dressing material: its types and basic properties. Requirements for dressings.
  - 4. Preparation of dressing and surgical material, as well as linen and their sterilization.
  - 5. Autoclave, its device and work.
  - 6. Sterilization gloves.
  - 7. Preparation of the surgical field.
  - 8. Hot air (dry heat) sterilization in dry heat ovens (air sterilizers).
  - 9. Control of autoclave sterilization and dry heat ovens (air sterilizers).
  - 10. Implant infection. The concept and its sources.
  - 11. Suture material, its types and purpose, classification by source. Requirements.
- 12. Modern stitching machines. Their types and purpose. Suture material applied here. Sterilization of the sewing devices.
  - 13. Autoplastic materials used in surgery and traumatology and their sterilization.
  - 14. Homoplastic materials used in surgery and traumatology and their sterilization.
- Topic 5. General issues of anesthesiology. Methods of general anesthesia, indications, contraindications and complications. Methods of local anesthesia.

#### **Ouestions:**

- 1. General anesthesia (anesthesia). Types of anesthesia as prescribed. Mechanisms of action of drugs on the body (the theory of anesthesia).
  - 2. Preparations used for general anesthesia and their pharmacodynamics.

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- 3. Muscle relaxants, their mechanism of action and complications.
- 4. The clinical course of anesthesia in stages.
- 5. Mask anesthesia. Indications, contraindications and complications.
- 6. Endotracheal anesthesia. Indications, contraindications and complications.
- 7. Intravenous anesthesia. Indications, contraindications and complications.
- 8. Local anesthesia. Preparations for local anesthesia, their pharmacodynamics. Local layered infiltration anesthesia by the method of tight creeping infiltration according to Vishnevsky.
  - 9. Methods of local anesthesia. Indications, contraindications and complications.
- 10. Local intraosseous, intravenous and intraarterial anesthesia. Indications, contraindications and complications.
- 11. Conductive, spinal and epidural anesthesia. Indications, contraindications and complications.
- Theme 6. Resuscitation in violation of the vital functions of the body. The form of conducting a practical lesson, work in the simulation center a business game.

#### **Questions:**

- 1. Neuroleptanalgesia. Indications, contraindications and complications. Used drugs.
- 2. Equipment for anesthesia and mechanical ventilation (ALV). Methods of mechanical ventilation.
  - 3. Methods for managing vital body functions (artificial hypotension, hypothermia.
  - 4. Reanimation. Notion Vital functions of the body, their types and causes of violations.
- 5. Methods of elementary and skilled resuscitation. Restoration of the patency and function of the respiratory system, circulatory system and metabolism. The equipment used for resuscitation.
  - 6. Central venous pressure (CVP).
- Topic 7. Bleeding and blood loss. Concept, classification, first aid and treatment. Methods to stop external bleeding.

#### **Ouestions:**

- 1. The concept of bleeding and blood loss. The hemostasis system is normal.
- 2. Classification of bleeding.
- 3. External bleeding, causes, clinic.
- 4. Internal bleeding, causes, clinic.
- 5. Temporary methods to stop bleeding.
- 6. Plaits to stop external bleeding, their types, the technique of blending, depending on the location of the bleeding and its nature.
  - 7. Methods for the final stop of bleeding. Blood loss treatment.
- 8. The reaction of the body to bleeding and blood loss. The value of compensatory mechanisms.
  - 9. Factors contributing to independent bleeding. Outcomes of bleeding.
- 10. Catheterization, puncture of the central (subclavian, femoral, internal jugular) and peripheral veins.
- 11. Methods of determination and value for determining the volume of blood loss and the degree of blood loss.
- Topic 8. Disorder of blood coagulation in surgical patients and methods for their correction. Endogenous intoxication and water and electrolyte disturbances in surgery.

The principles of its correction.

#### **Questions:**

1. The hemostasis system is normal.

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- 2. Methods for the study of hemostasis.
- 3. The effect of diseases, injuries and surgeries on hemostasis.
- 4. Thromboembolic complications, causes, clinical presentation, treatment and prevention.
- 5. Reduction of blood coagulation properties in diseases, injuries, operations.
- 6. Hemorrhagic syndrome in surgery. DIC or TGS-syndrome.
- 7. The concept of endogenous intoxication and its main types in surgical patients.
- 8. Clinical and laboratory findings. Assessment of the severity of patients.
- 9. Principles of complex treatment. Stimulation of natural detoxification mechanisms, artificial detoxification.
  - 10. Efferent detoxification methods.
  - 11. Surgical elimination of endogenous intoxication.
  - 12. Water-electrolyte disorders in surgical patients, causes.
  - 13. Clinical and laboratory diagnosis of water and electrolyte disorders in surgical patients.
  - 14. Methods of correction of water and electrolyte disorders, applied solutions.
  - 15. Dangers and complications of plasma-replacement solutions.
  - 16. Preparations for parenteral nutrition in order to correct protein exchange.

# Theme 9. Blood type and Rh factor. Determination of blood type.

#### **Questions:**

- 1. Historical data. The concept of science transfusiology.
- 2. Erythrocyte and plasma factors of blood groups (agglutinogens and agglutinins). The designation of blood groups.
  - 3. Method of determining blood groups. Errors in the determination of blood groups.
  - 4. Rh factor, its value, the method of determination.
  - 5. Compatibility tests. Methods of conducting tests.
- 6. Indications and contraindications for blood transfusion and its components and preparations.
- 7. Preservation of blood. Preparation of components and blood products, their storage and shelf life.
  - 8. The mechanism of action of transfused blood.
- 9. Ways of blood components transfusion. Intraosseous path. Method of puncture of the epiphysis of large bones, sternum. Other indications for these punctures.

#### Topic 10. Transfusion of blood components and blood substitutes.

Errors and complications. Donation

#### Questions:

- 1. Technique of intravenous, intraarterial and intraosseous transfusion of blood and its components.
- 2. Mistakes, dangers and complications during the transfusion of blood and its components, their prevention and treatment.
- 3. Exchange transfusions, blood reinfusion, transfusion of canned autologous blood, bone marrow transplantation.
  - 4. Transfusion of carriers of blood gases (erythrocyte mass).
- 5. Transfusion correctors of hemostasis and fibrinolysis (blood plasma, platelet mass, cryoprecipitate).
- 6. Transfusion of immunity correction agents (leukovzvesz, plasma of the directed anti-infective action). Blood products and their transfusion.
- 7. Blood substitutes, purpose and classification. Blood substitutes for hemodynamic, detoxification, parenteral nutrition and regulation of ionic equilibrium.

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- 8. Blood transfusion technique, complications and their prevention and treatment.
- 9. Donation, organization. Contraindications to donation.

#### Theme 11. Thermal and chemical burns.

#### **Ouestions:**

- 1. Thermal burns. Classification according to the degree and stages of flow.
- 2. Methods for determining the area of destruction.
- 3. Disorders of the body during thermal burns (shock, toxicosis, plasma loss).
- 4. Features of shock during thermal burns.
- 5. Complications of thermal burns (purulent complication, sepsis).
- 6. First aid for thermal burns.
- 7. Burn disease. Treatment, outcomes.
- 8. Organization and work of specialized burn wards and centers.
- 9. Chemical burns of the skin. Causes, first aid and treatment. Chemical burns of the esophagus, clinic, first aid.

# Theme 12. Cold injury and electric shock.

#### **Ouestions:**

- 1. Frostbite, causes, classification by degrees and area of damage.
- 2. Modern views on the pathogenesis of frostbite.
- 3. Symptoms of frostbite in the pre-reactive and reactive periods.
- 4. First aid and treatment for frostbite. Technique of imposing thermoisolating dressings.
- 5. Chills and freezing, symptoms, first aid and treatment.
- 6. Electrotrauma. Causes, local and general effects of electric current on the body. Electric burns, their features.
  - 7. First aid and treatment for electrical injuries.
- Theme 13. Wounds, wound process, clinical manifestations, first aid, treatment. Treatment of wounds, its types, types of wound healing. Infected wounds.

# Questions:

- 1. Wounds, classification by origin and nature of wounds, their localization and relationship to body cavities.
  - 2. Clinical manifestations common to all types of wounds.
  - 3. Clinic of wounds depending on their nature and location.
  - 4. The course of the wound process, depending on its phase.
  - 5. Morphological and biochemical changes in the wound.
- 6. First aid for wounds depending on their nature, complications and attitudes to the body cavities.
  - 7. General principles of treatment of wounds.
- 8. Medical tactics for fresh wounds, depending on the location, nature of wounds and attitude to the body cavities.
  - 9. Primary surgical treatment of wounds. General concepts and its principles.
  - 10. Justification of the primary treatment of wounds, indications, technique, results.
  - 11. Features of primary treatment of wounds, depending on the nature of the wound.
  - 12. Features of treatment and tactics for wounds penetrating into the body cavity.
- 13. Features of treatment of wounds depending on related complications (bleeding, bone fractures, hematomas).
  - 14. Types of stitches: primary, primary delayed, secondary and secondary delayed.
  - 15. General principles of treatment of infected wounds.

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- 16. General and local treatment of infected wounds. Wound drainage methods: active, passive, flow-suction and vacuum drainage of wounds.
  - 17. Features of primary surgical treatment of bitten wounds.

# Theme 14. Desmurgy.

#### **Ouestions:**

- 1. General concepts of desmurgy.
- 2. Classification of dressings depending on their type and name.
- 3. Screw dressings, their types, the technique of applying to individual areas of the body.
- 4. Kanova bandages, their types and overlay technique.
- 5. Adhesive dressings, their purpose and technique of imposition.
- 6. Bandages on the body.
- 7. Bandages on the lower extremities. 8. Headbands.

# Topic 15. Parasitic surgical diseases.

#### Questions:

- 1. The concept of surgical parasitic diseases.
- 2. Echinococcosis. Brief ideas about the development cycle of the parasite. Ways of infection. Prevention of echinococcosis.
  - 3. Morphological forms of echinococcosis in humans.
  - 4. Diagnosis of echinococcal cyst in the liver, lungs and other internal organs.
  - 5. Surgical treatment of echinococcosis.
  - 6. Alveococcosis: causes, diagnosis, surgical treatment.
- 7. Ascariasis. Brief ideas about the development cycle of the parasite. Ways of infection. Prevention of ascariasis.
  - 8. Clinical manifestations of "surgical" ascariasis.
  - 9. Surgical treatment of surgical complications of ascariasis.
  - 10. Opisthorchiasis damage to the liver, gallbladder, pancreas trematodes.
  - 11. Ways of infection of opisthorchiasis. Prevention of opisthorchiasis.
  - 12. The clinical picture, diagnosis, surgical treatment of complications of opisthorchiasis.

## Theme 16. Basics of surgical oncology. Tumors.

#### **Questions:**

- 1. Benign and malignant tumors.
- 2. Pre-cancerous diseases.
- 3. General concepts about tumors, benign and malignant tumors, tumor classification, classification of tumors according to various criteria, including the TMNP system. Organization of cancer care.
- 4. Clinic of tumors and methods of their diagnosis (x-ray, endoscopic, histological, cytological, ultrasound).
- 5. Pre-cancerous diseases. The need and importance of early diagnosis of malignant tumors.
- 6. Clinic of connective tissue tumors: benign (fibroma, lipoma, chondroma, osteoma) and malignant (sarcoma).
- 7. Clinic of tumors from muscular, vascular and nervous tissue (fibroids, angiomas, gliomas, neuromas, ganglioneuromas).
- 8. Clinic of tumors of epithelial origin: benign (papilloma, adenoma, cystadenoma, dermoid) and malignant (cancer).
  - 9. Surgical treatment of tumors. The possibilities of endoscopic operations.

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- 10. Radiation, chemotherapy, hormonal and combined treatment of tumors the basic concepts.
  - 11. Treatment outcomes of tumor processes.

#### Theme 17. Malformations

#### **Ouestions:**

- 1. The concept of congenital pathology.
- 2. Congenital malformations of the head.
- 3. Anomalies of the face and oral cavity.
- 4. Congenital fistula and cysts of the neck. Torticollis.
- 5. Spinal defects.
- 6. Congenital tumors of the sacrococcygeal region.
- 7. Congenital malformations of the chest and chest organs.
- 8. Congenital abdominal defects.
- 9. Congenital heart defects.
- 10. The concept of surgical treatment of malformations.

# Theme 18. Plastic and reconstructive surgery. Transplantology.

#### **Questions:**

- 1. The concept of corrective surgery.
- 2. The concept of plastic surgery.
- 3. The concept of reconstructive surgery.
- 4. Restorative anatomical and functional disorders of organs and systems.
- 5. Corrective surgery of the consequences and complications of diseases.

#### Theme 19. Examination of the surgical patient.

Form conducting - business and role-playing game.

#### Questions

- 1. General clinical research methods: survey, examination, palpation and auscultation.
- 2. Measurement of organs and body parts.
- 3. Measurement of the shape of the body part.
- 4. Measurement of body temperature.
- 5. Blood pressure measurement.
- 6. Pulse measurement.
- 7. Special research methods.
- 8. Interpretation of laboratory research methods.
- 9. Interpretation of functional research methods.
- 10. Interpretation of radiological methods.
- 11. Interpretation of endoscopic research methods.
- 12. Interpretation of ultrasound methods.
- 13. Interpretation of radioisotope research methods.
- 14. Interpretation of computed tomography.
- 15. Interpretation of magnetic resonance imaging.

## Theme 20. Bone fractures. Treatment of bone fractures.

Form holding - practical lesson

#### **Questions:**

- 1. Bone fractures: causes, mechanisms, classification.
- 2. Fractures of large bones: clinic, diagnosis, complications.

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- 3. Features of the clinical signs of fractures of large bones, depending on the location (thigh, shin, shoulder, forearm).
- 4. Features of mechanisms and clinic fractures of lamellar bones (ribs, skull, pelvis).
- 5. Some features of the mechanisms and clinic fractures of small bones (spine, foot, hand).
- 6. First aid for closed fractures of large bones.
- 7. Features of first aid for open bone fractures.
- 8. Features of first aid and treatment for fractures of the lamellar and small bones of the pelvis (hand, foot, pelvis, ribs, spine).
- 9. General principles of treatment of closed and open fractures of large tubular bones.
- 10. Traumatic amputation of bones and soft tissues, methods of preserving amputated segments for replantation. Methods of microsurgery during replantation.
- 11. Indications for treatment of fractures of large bones with plaster casts, skeletal traction, the use of osteosynthesis and compression-distraction apparatus.
- 12. Surgical treatment of fractures of large bones: indications, methods.
- 13. Features of the treatment of fractures of lamellar and small bones.
- 14. Morphological changes in the fracture zone at different times. Bone callus formation.
- 15. Causes of delayed fusion of bone fractures and the formation of false joints. Treatment of patients in such cases.
- 16. Gypsum, its properties, storage, inspection and quality control.
- 17. Plaster dressings, their types and use.

# Theme 21. Dislocation of joints.

Form holding - practical lesson

#### **Questions:**

- 1. Dislocations: causes, mechanisms, classification.
- 2. Clinic, diagnosis, first aid and treatment of shoulder dislocations.
- 3. Clinic, diagnosis, first aid and treatment of other dislocations.
- 4. Complications of dislocations, their signs and treatment.
- 5. Hemarthrosis. Technique puncture large joints. Other indications for puncture of the joints.
- 6. Types of standard tires and their application. Rules of immobilization for dislocation of bones.

# Theme 22. Damage to soft tissue. Prolonged Syndrome

and positional compression syndrome.

Form holding - practical lesson

#### **Questions:**

- 1. Closed soft tissue injuries (bruises, strains, tears): causes, mechanisms. Hematomas: treatment, methods of puncture.
- 2. Symptoms of soft tissue injuries: first aid, treatment.
- 3. Signs of rupture of the ligamentous apparatus of the joints: first aid and treatment. Hemarthrosis: methods of puncture of the joint cavity.
- 4. Soft tissue tears, their clinic, first aid and treatment.
- 5. Outcomes of soft tissue damage
- 6. Syndrome of prolonged compression (VTS) and the syndrome of positional compression: the concept, causes of pathogenesis.
- 7. Clinical signs of VTS and positional compression syndrome.
- 8. First aid, treatment and outcomes VTS.

Theme 23. Transport immobilization.

Uniform holding is a business game.

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# Questions:

- 1. Transport and therapeutic immobilization, the concept and their goals.
- 2. Types of tires for transport immobilization.
- 3. The use of available tools and standard tires for transport immobilization. The technique of their imposition.
- 4. Indications for use of transport immobilization.
- 5. Immobilization rules.
- 6. Features of transport immobilization for fractures of large bones.
- 7. Transport immobilization for fractures of the pelvic bones
- 8. Transport immobilization for spinal fractures.
- 9. Possible complications of transport immobilization.

Theme 24. Injuries to the skull, chest and abdomen.

Uniform holding is a business game.

#### **Questions:**

- 1. Injuries of the skull: classification, clinic, diagnosis.
- 2. First aid. First aid, treatment. Spinal (lumbar) puncture: indications, technique.
- 3. Breast injuries: classification, complications, clinic.
- 4. First aid and treatment for injuries of the chest.
- 5. Complications of injuries of the chest (pneumothorax, hemothorax).
- 6. Indications and techniques of pleural puncture and drainage of the pleural cavity.
- 7. Heart damage: clinic, first aid, treatment.
- 8. Puncture and drainage of the pericardial cavity, indications, technique.
- 9. Abdominal injuries: classification, clinic, diagnosis, first aid, treatment.
- 10. Laparocentesis: indications, technique.
- 11. Laparoscopy: indications.
- 12. Puncture and drainage of the bladder: indications, technique.

Theme 25. Acute purulent infection. Common questions, problems.

Purulent diseases of the skin and subcutaneous tissue.

Form holding - practical lesson

#### **Questions:**

- 1. Etiology of acute purulent infection. Pathogens.
- 2. Pathogenetic mechanisms of acute purulent infection.
- 3. General and local reaction of the body. Clinical signs are common to all forms of acute purulent infection.
- 4. Principles of general and local treatment of acute purulent infection.
- 5. Principles of antibiotic therapy.
- 6. The use of antiseptics and enzymes.
- 7. Folliculitis.
- 8. Furuncle, furunculosis.
- 9. Carbuncle and carbuncle. Etiopathogenesis, clinic, treatment.
- 10. Hydradenitis. Etiopathogenesis, clinic, treatment.
- 11. Abscesses of different locations.
- 12. Phlegmons of different localizations. Etiopathogenesis, clinic and treatment.
- 13. Empyema: the concept and its types.
- 14. Purulent diseases of cellulose spaces (phlegmon of the neck, subfascial and intermuscular phlegmons of the extremities, axillary and subpectoral phlegmons). Clinic, treatment.

15. Purulent mediastinitis: causes, clinic, diagnosis, treatment.

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- 16. Purulent paranephritis and paracolitis: causes, clinic, treatment.
- 17. Purulent paraproctitis: classification, clinic, treatment. Pararectal fistula.
- 18. Erysipelas of the skin: etiopathogenesis, classification, clinic, diagnosis, prevention.

Theme 26. Acute purulent diseases of soft tissues and glandular organs and lymph nodes.

Form holding - practical lesson

#### Questions:

- 1. Lymphangitis, concept, form, clinic and treatment.
- 2. Lymphadenitis, types.
- 3. Adenoflegmon: concept, forms, clinic and treatment.
- 4. Mastitis: concept, factors contributing to the disease. Classification of mastitis.
- 5. Clinic and diagnosis of mastitis. Treatment of mastitis.
- 6. Mumps: causes, clinic, treatment.
- 7. Prostatitis: causes, clinic, treatment.

Theme 27. Acute purulent-destructive diseases of the abdominal organs.

Purulent inflammatory diseases of the serous cavities.

Form holding - operational game

#### Questions:

- 1. Acute purulent-destructive diseases of the abdominal organs, as the cause of peritonitis.
- 2. Peritonitis: concept, classification.
- 3. Etiopathogenesis of peritonitis.
- 4. Clinic and diagnosis of purulent peritonitis.
- 5. Treatment of peritonitis. Methods of sensing the stomach, small and large intestines. Methods of drainage of the abdominal cavity.
- 6. Pleurisy. Clinical signs and diagnosis of pleurisy
- 7. Pleural empyema: concept, classification.
- 8. Meningitis, as a surgical pathology.

Theme 28. Acute purulent diseases of bones, joints, feet.

Form holding - practical lesson

#### **Questions:**

- 1. Hematogenous osteomyelitis: concept and classification.
- 2. Etiology and pathogenesis of acute hematogenous osteomyelitis.
- 3. Clinic and diagnosis of acute hematogenous osteomyelitis.
- 4. Treatment of acute hematogenous osteomyelitis.
- 5. Traumatic and postoperative osteomyelitis. Etiology, pathogenesis, clinical features, diagnosis and treatment.
- 6. Primary chronic forms of osteomyelitis, etiopathogenesis, clinic and treatment.
- 7. Chronic osteomyelitis. Etiopathogenesis, clinic, diagnosis and treatment.
- 8. Acute suppurative arthritis. Classification, clinic, treatment. Technique puncture joints and arthrotomy.
- 9. Purulent diseases of the hand and fingers, causes.
- 10. Classification of felon and phlegmon brush.
- 11. Clinic of acute purulent diseases of the hand and fingers.
- 12. Treatment of felon and phlegmon of the hand.
- 13. Diabetic foot: concept, forms, clinic, treatment.

Theme 29. Sepsis, anaerobic clostridial and non-clostridial soft tissue infections.

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## Form holding - practical lesson

#### **Questions:**

- 1. The concept of sepsis, classification.
- 2. Etiopathogenesis of sepsis.
- 3. Clinic and diagnosis of sepsis.
- 4. Treatment of sepsis.
- 5. Modern methods of bacteriological confirmation of sepsis.
- 6. Anaerobic clostridial infection: etiology, pathogenesis, pathogens, patho-anatomical picture.
- 7. Clinic and diagnosis of various forms of anaerobic infection.
- 8. General and local treatment of anaerobic infection.
- 9. Anaerobic non-clostridial infection: etiopathogenesis, clinical presentation, diagnosis and treatment.
- 10. Treatment of anaerobic non-clostridial soft tissue infection.

## Theme 30. Acute specific infection.

Form holding - practical lesson

#### **Ouestions:**

- 1. Etiology and pathogenesis of tetanus.
- 2. Clinic and diagnosis of tetanus.
- 3. Treatment of tetanus.
- 4. Emergency and routine prevention of tetanus.
- 5. Anthrax. Etiopathogenesis, clinical features and treatment.
- 6. Diphtheria wounds. Etiopathogenesis, clinic, diagnosis and treatment.
- 7. Rabies. Etiopathogenesis, clinic, prevention.
- 8. Candidomycosis (candidiasis), causes, forms, clinic, diagnosis, treatment.
- 9. Emergency prevention of tetanus.
- 10. Emergency prevention of rabies
- 11. Introduction of sera and vaccines by uncommon

#### Theme 31. Chronic specific infection.

Form holding - practical lesson

#### **Questions:**

- 1. Chronic tuberculosis. Notion Modern problems.
- 2. Surgical forms of pulmonary tuberculosis. Clinic, treatment.
- 3. Osteo-articular tuberculosis: classification, pathogenesis.
- 4. Stages of osteo-articular tuberculosis.
- 5. The clinical course of osteo-articular tuberculosis (general and local symptoms).
- 6. Peculiarities of the course of the pre-arthritic, arthritic and post-arthritic stages. Complications. Features puncture sinter abscesses.
- 7. Features of the course of individual forms of osteo-articular tuberculosis (spondylitis, coxitis, drives).
- 8. Surgical treatment of individual forms of bone and joint tuberculosis.
- 9. Tuberculosis of lymph nodes (peripheral and intrathoracic).
- 10. Bone syphilis: clinic, differential diagnosis with osteomyelitis and bone tuberculosis.
- 11. Actinomycosis: the main localization, pathogenesis, clinic, diagnosis and treatment.

Theme 32. Basics of circulatory disorders (necrosis, gangrene, ulcers and fistula).

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Questions:

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- 1. Deaths: the concept, causes and conditions conducive to the development of the disease.
- 2. Types of death. Features clinic dry and wet gangrene.
- 3. General and local treatment of necrosis, prevention.
- 4. Certain types of circulatory disorders, the concept of them, the value of collateral circulation.
- 5. Thrombosis and embolism: etiopathogenesis, clinic, treatment.
- 6. Obliterating atherosclerosis, obliterating endarteritis, thromboangiitis obliterans (Buerger's disease): etiopathogenesis, clinical presentation, diagnosis and treatment.
- 7. Trophic ulcers (varicose, post-traumatic, cicatricial, post-burn, etc.). Etiopathogenesis, clinic and treatment.
- 8. Bedsores: causes, clinic, treatment and prevention.
- 9. Fistulas: types, etiopathogenesis, prevention and treatment.
- 10. Lymphostasis: causes, clinic and treatment.

Theme 33. Basics of surgery for circulatory and lymph circulation disorders of the extremities.

Form holding - practical lesson

#### **Ouestions:**

- 1. Acute arterial insufficiency of the extremities. Definition, clinic, diagnosis, treatment.
- 2. Chronic arterial insufficiency of the extremities. Definition, clinic, diagnosis, treatment. Stage.
- 3. Critical lower limb ischemia.
- 4. Acute venous insufficiency of the extremities. Definition, clinic, diagnosis, treatment.
- 5. Chronic venous insufficiency of the extremities. Definition, clinic, diagnosis, treatment.
- 6. Disorder of lymph circulation.

Theme 34. Surgery. Preoperative preparation of patients.

Form holding - practical lesson

#### **Ouestions:**

- 1. The concept of surgery, types of surgery.
- 2. Stages of surgery.
- 3. Anatomical and pathophysiological rationale for surgical operations.
- 4. The volume of study of the patient during planned and emergency operations.
- 5. Features and scope of research of patients, depending on the patient's age, area and organ from which the operation is performed.
- 6. Justification of indications for emergency and planned operations.
- 7. Preparation of organs and body systems for surgery, depending on the urgency and volume of the operation, the nature of the underlying disease
- 8. Monitoring the patient during the operation. Modern methods and equipment for monitoring the condition of the patient.

Theme 35. Post-operative period.

Form conducting - an interactive form-learning game: work in small groups.

#### **Ouestions:**

- 1. The postoperative period: the concept, pathophysiological changes in the body in this period.
- 2. Methods of monitoring patients in the postoperative period. Opportunities and methods of monitor surveillance.

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- 3. Possible early postoperative complications from the postoperative wound and the operated organ and area. Their signs and diagnosis. Features after operations on the organs of the abdominal, pleural cavities, soft tissues and bones.
- 4. Late postoperative complications from the postoperative wound, the operated organ and the region, their clinical picture and diagnosis.
- 5. Complications of the internal organs, cardiovascular system, lungs, liver, kidneys and neuro-psychological sphere of the patient in the postoperative period, their signs and diagnosis.
- 6. Thromboembolic complications, risk factors, their occurrence, causes, clinical presentation, prevention and treatment.
- 7. Nutrition of patients and the value of care after surgery and the value of early activation of patients for the prevention of complications.
- 8. Treatment of complications arising from the operated organ or area.

Theme 36. History of the disease. Diagnostic algorithm. Epicrisis. Form conducting - an interactive form-learning game: work in small groups. Questions:

- 1. Analysis and discussion of case histories written by each student.
- 2. Algorithm concept and types.
- 3. Epicrisis the concept and types.

#### 7. labs WORKSHOPS

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

## 8. SUBJECTS course, control works, abstracts

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

## 9.PERECHEN questions for an exam

- 1. Aseptic, concept, endogenous and exogenous sources of infection. Intrahospital infection, concept, prevention. Orders of the Ministry of Health of the Russian Federation regulating the implementation of measures to prevent purulent infection.
- 2. Antiseptic, concept, species. Ideological predecessors of antiseptics (L.Paster, N.I. Pirogov) and its creators (I.Zemmelweis, D.Lister). Antiseptics and proteolytic enzymes, classification, methods of application.
- 3. Prevention of air and droplet infection. Organization of the surgical department (wards, dressing rooms, operating unit). Cleaning in the operating room, its types.
- 4. Prevention of contact infection. Surgical instruments: classification, features of the device, care, sterilization.
- 5. Prevention of contact infection. Operating linen, operating and dressing materials, requirements for them, their types, sterilization. Autoclave: its device and work.
- 6. Prevention of contact infection: preparation of the surgeon's hands for surgery, their methods, sterilization of gloves, preparation of the operating field.

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- 7. Prevention of implantation (implanted) infection. Suture and alloplastic materials: their types, basic requirements for suture material. Sterilization.
- 8. Characteristics of blood groups. Methods and methods of their determination, errors, their classification and ways of warning.
- 9. Rh factor and blood cell factor, antigenic structure, importance in surgery, donation in obstetrics, gynecology and pediatrics, methods of determination.
- 10. Bleeding and blood loss, concept, classification, causes. The reaction of the body to blood loss, pathophysiological and compensatory mechanisms, developing at the same time. Mechanisms of hemostasis, methods of its study.
- 11. Methods of stopping bleeding: temporary and final (mechanical, chemical, physical, biological). Treatment of hemorrhage.
- 12. Indications and contraindications for transfusion of blood and its components. Compatibility tests. The mechanism of action of transfused blood and its components.
- 13. Errors, dangers and complications in blood transfusion: classification, clinic, treatment.
- 14. Blood substitutes and plasma substitutes (hemocorrectors), classification, indications for use, complications in transfusion and their prophylaxis.
- 15. Blood preparations: types, indications for use.
- 16. Modern concepts of blood transfusion. Components of blood: their characteristics, storage conditions, indications for use. Ways and methods of transfusion of blood and its components.
- 17. Sources of blood for transfusion (reinfusion, autotransfusion, donor blood). Donation.
- 18. Lymphostasis, the main causes, diagnosis and treatment.
- 19. Water-electrolyte and acid-base disorders in surgical patients, causes, clinic, diagnosis, correction Endogenous surgical intoxication, causes, clinic, diagnosis, conservative and surgical treatment. Methods detoxification.
- 20. General anesthesia, its types, the effect of narcotic substances on the body.

  Preparation for general anesthesia, premedication. Clinical course of anesthesia.
- 21. Local anesthesia, its types, the drugs used, their pharmacodynamics, indications, contraindications, dangers and complications.
- 22. Intravenous anesthesia, drugs used for it. Indications, contraindications, complications.
- 23. Muscle relaxants, indications for use, mechanism of action, complications.
- 24. Inhalation anesthesia, its kinds, indications, complications and struggle with them.
- 25. Neuroleptanalgesia (NLA): indications, drugs used for it.
- 26. Equipment for anesthesia and artificial ventilation (IVL), methods of mechanical ventilation. Principles of anesthesia apparatus.
- 27. Resuscitation, concept. Ways to restore cardiovascular and respiratory activities in the provision of first aid and in the treatment in intensive care units.
- 28. Terminal states, clinical characteristics, first aid and treatment.

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- 29. Wounds, classification. Morphological and biochemical changes in the wound. Are common principles of treatment of fresh wounds.
- 30. Primary surgical treatment of wounds, its terms and their justification, technique. Types of seams, used in the initial surgical treatment of wounds.
- 31. Treatment of festering wounds, treatment and methods of their treatment.
- 32. Bitten wounds: clinical manifestations, peculiarities of treatment, complications.
- 33. Penetrating wounds of the pleural cavity, complications, first aid, treatment.
- 34. Traumatism: concept, causes, classification, organization of first aid and treatment
- 35. Shock, its types, pathogenesis, clinic, diagnosis, first aid and treatment traumatic shock.
- 36. Shock, its types. Traumatic shock, etiopathogenesis, clinic, diagnosis, treatment, prevention.
- 37. Thermal burns and burn disease, classification, disorders of the body with burns, determination of the area and degree of burn, first aid and treatment of burn disease.
- 38. Electrical injury: etiopathogenesis, classification, local and general manifestations, the first help and treatment.
- 39. Frostbites: etiopathogenesis, classification, clinic, first aid, treatment, prevention.
- 40. Chemical burns of skin and mucous membranes: causes, features of acid burns and alkalis, first aid and treatment.
- 41. Injuries to the chest and organs in it: a clinic, first aid, treatment.
- 42. Injuries of the abdominal cavity and its organs: mechanism, clinic, diagnosis, first aid and treatment.
- 43. Closed fractures of long bones: biomechanism, classification, general and local phenomena, clinic, diagnostics.
- 44. Open fractures of long bones: the features of the clinic, first aid and treatment, complications and their treatment.
- 45. Closed injuries of soft tissues (bruises, sprains, tears), mechanism, clinic, first aid, treatment.
- 46. Delayed consolidation and false joints in the treatment of bone fractures: causes, treatment.
- 47. Transport immobilization in bone fractures, types of immobilizing materials, rules of immobilization.
- 48. The syndrome of prolonged compression and the syndrome of positional compression, causes, pathogenesis, clinic, classification, first aid, treatment.
- 49. Functional method of treatment of bone fractures: species, indications for use.
- 50. Compression-distraction osteosynthesis: its place in the treatment of bone fractures, indications for use.
- 51. Gypsum: its properties, determination of suitability, plaster casts, species, indications to Form 27 from 42

application, complications.

52. Dislocation of joints: biomechanism, types of dislocations of individual joints, clinic, diagnosis,

first aid, treatment.

- 53. Bedsores: concept, cause, signs, treatment, prevention.
- 54. Acute purulent diseases, general issues of etiopathogenesis, stages, classification, clinic, diagnosis, treatment and prevention.
- 55. Acute purulent diseases of the skin and subcutaneous fat (furuncle, furunculosis, carbuncle, hydradenitis, abscesses, phlegmon): etiopathogenesis, clinic, treatment.
- 56. Purulent processes of the cellulose tissue of the retroperitoneal space and the pelvis, purulent paranephritis.
- 57. Acute purulent diseases of the hand and fingers: etiopathogenesis, classification, clinic, treatment, prevention.
- 58. Subfascial and intermuscular phlegmons of the extremities, phlegmon of the foot, cause, clinic, diagnosis and treatment.
- 59. Axillary and subjectoral phlegmon, causes, clinic, diagnosis and treatment
- 60. Purulent diseases of glandular organs (parotitis, pancreatitis, prostatitis), causes, clinic, diagnosis and treatment.
- 61. Acute purulent-destructive diseases of the abdominal cavity and peritonitis: etiopathogenesis, clinic, diagnosis, treatment.
- 62. Purulent and purulent-destructive diseases of the lungs and pleural cavity: etiopathogenesis, classification, clinic, diagnosis, treatment.
- 63. Lymphangitis, lymphadonitis, adenoflegion, etiopathogenesis, clinic, treatment.
- 64. Neck phlegmon, causes, clinic, diagnosis, treatment.
- 65. Mastitis: etiopathogenesis, classification, clinic, diagnosis, treatment, prevention.
- 66. Erysipelatous skin inflammation: etiopathogenesis, classification, clinic, treatment.
- 67. Surgical forms of pulmonary tuberculosis and tuberculous lymphadenitis, forms, clinic, diagnosis, treatment.
- 68. Anaerobic gas gangrene, pathogens, pathogenesis, clinic, treatment, prevention.
- 69. Purulent arthritis and bursitis, cause, clinic, diagnosis, treatment.
- 70. Acute and chronic paraproctitis, causes, clinic, diagnosis and treatment.
- 71. Inflammatory diseases of veins (phlebitis, thrombophlebitis, phlebothrombosis), the cause, clinic, diagnosis, treatment.
- 72. Antibiotic therapy for purulent surgical diseases, indications, complications and modern problems.
- 73. General purulent infection (sepsis), etiopathogenesis, classification, clinic, diagnosis, treatment and prevention.
- 74. Osteomyelitis: concept, etiopathogenesis, classification, clinic, diagnosis and treatment.

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- 75. Syphilis of bones and joints: clinic, differential diagnostics with osteomyelitis and tuberculosis, treatment.
- 76. Tuberculosis of the spine: a clinic, diagnostics, treatment.
- 77. Tuberculosis coke and driving: clinic, diagnosis, treatment.
- 78. Purulent meningitis and abscesses of the brain, cause, clinic, diagnosis and treatment.
- 79. Purulent mediastinitis, causes, clinic, diagnosis, treatment.
- 80. Gangrene: concept, causes. Gangrene in vascular diseases of the extremities, causes, clinic, diagnosis, treatment.
- 81. Malformations of the skull, brain and spinal cord. Reason, clinic, diagnosis, principles of treatment.
- 82. Malformations of the development of the cardiovascular system: clinic, diagnosis, treatment.
- 83. Congenital diseases of the neck: clinic, diagnosis, treatment.
- 84. Congenital diseases of the digestive tract: clinic, diagnosis, treatment.
- 85. Malformations of the genitourinary system: types, clinic, diagnosis, treatment.
- 86. Congenital malformations of the spine: a clinic, diagnosis, treatment.
- 87. Congenital malformations of limbs: clinic, diagnosis, treatment.
- 88. General data on tumors, etiopathogenesis, precancerous diseases, classification, Clinic, general principles of diagnosis and treatment.
- 89. Tumors of muscular, vascular and nerve tissue: clinic, treatment.
- 90. Benign tumors of connective tissue: clinic, treatment.
- 91. Benign epithelial tumors: signs, treatment, depending on localization.
- 92. Malignant tumors of connective tissue: clinic, diagnosis, treatment.
- 93. Tetanus: etiopathogenesis, classification, clinic, treatment, emergency and planned prevention.
- 94. Rabies, etiopathogenesis, prevention and antiepidemic measures.
- 95. Empyema, the concept. Empyema of individual localizations, clinic, diagnosis, treatment.
- 96. Fistulas: concept, classification, clinic, treatment.
- 97. Obliterating arterial diseases of the extremities, thrombosis and embolism: etiopathogenesis,
  - clinic, diagnosis, treatment, complications and their treatment.
- 98. Actinomycosis: etiopathogenesis, basic localization, clinic, treatment. Candidomycosis, causes, treatment.
- 99. Askaridosis and the surgical diseases caused by it: a clinic, treatment.
- 100. Echinococcosis and alveococcosis: etiopathogenesis, clinic, diagnosis, complications, treatment.
- 101. Opisthorchiasis, pathways of infection, clinic, diagnosis, treatment.

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- 102. Anthrax and diphtheria of wounds: a clinic, differential diagnostics with purulent diseases, treatment, prevention.
- 103. Ulcers, the concept. Trophic ulcers of the lower extremities: causes, clinic, treatment.
- 104. Transplantation of tissues, organs and cells: indications, classification of tissues in dependence

from the source of receipt.

- 105. Plastic of the skin, muscles, vessels, nerves, bones: indications, methods.
- 106. Preoperative preparation and its scope, depending on the nature of the operation and its urgency.
  - 107. Preoperative period, scope of examination of a patient before surgery, preparation of organs and systems of the body, its features in emergency operations.
  - 108. Surgical operation, concept, species, anatomical and physiological substantiation of surgical operations.
  - 109. Postoperative period, care of patients, possible complications, their treatment and prevention.
  - 110. Catheterization, puncture and drainage of the bladder, indications, technique.
- 111. Puncture and catheterization of peripheral and central veins, indications, techniques, complications.
- 112. Puncture of cavities of joints and bones, indications, technique.
- 113. Puncture and drainage of the pleural cavity, indications, technique.
- 114. Puncture of pericardium, indications, technique, points.
- 115. Puncture of the cavities of the heart, indications, technique.
- 116. Puncture of abdominal cavity laparocentesis, indications, technique, possible complications.
- 117. Lumbar puncture, indications, technique.
- 118. Indications for sensing and draining of the esophagus, stomach, thin and thick intestines. Technique, possible complications.
- 119. Drainage of hollow organs of the abdominal cavity through natural openings and with using operations, indications. Principles of conducting.
- 120. Drainage of wounds and body cavities, types of drainage (active, passive, washing and aspiration).

# 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.).

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Subject. History of the development of surgery.

- 1. Stages of the development of surgery
- 2. Evolution of surgical instruments

Subject . Asepsis. Prevention of implant infection. Sterilization of suture and plastic material.

- 1. Importance of implant infection in modern surgery.
- 2. Suture material, its types and purposes, classification by source of receipt. Requirements to be met
- 3. Methods of sterilization of silk.
- 4. Methods for sterilizing catgut.
- 5. Methods of sterilization of hair, capron and other types of suture material.
- 6. Resorbable suture material.

Subject. General questions of anesthesiology.

- 1. History of the emergence of general anesthesia.
- 2. The main stages of the development of anesthesia.
- 3. Local infiltration anesthesia according to Vishnevsky.

Subject. Endogenous intoxication in surgery. Principles of its elimination.

- 4. The main types of surgical diseases causing endotoxicosis.
- 5. The importance of laboratory indicators for various types of endotoxicosis.
- 6. Modern efferent methods of detoxification.

.Subject. Water-electrolyte disturbances in surgery

- 1. Water sectors of the body.
- 2. Methods of correction of water-electrolyte disturbances, applied solutions.
- 3. Dangers and complications in transfusion of plasma-substituting solutions.
- 4. Preparations for parenteral nutrition for the purpose of correction of protein metabolism

Subject. Blood type and Rh factor. Transfusion of blood components.

- 1. Historical data. The concept of science transfusiology.
- 2. Methods for determining blood groups used in clinical practice ...
- 3. Rhesus factor, causes of hemolytic disease of newborns,
- 4. Order No. 363 on the approval of instructions for the use of blood components.
- 5. Modern methods of blood preservation.
- 6. The mechanism of action of transfused blood.

Subject. Transfusion of blood components. Errors and complications. Donation.

- 1. Benefits of blood reinfusion, the use of canned autoblood in modern surgery ...
- 2. Transfusion of means of correction of immunity (leukovzves, plasma of directed anti-infective action). Blood products and their transfusion.
- 3. Blood substitutes, purpose and classification. Blood substitutes for hemodynamic, detoxification, parenteral nutrition and regulation of ionic equilibrium.
- 4. The technique of blood transfusion transfusion, complications and their prevention and treatment.
- 5. Donation, organization. Contraindications to donation.

Subject. Modern blood substitutes.

- 3. Blood substitutes for hemodynamic action.
- 4. Blood substitutes for detoxification.

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5. Modern preparations for parenteral nutrition.

## Subject. Electrothrauma.

- 1. Peculiarities of electric trauma, depending on the magnitude and type of the damaging current.
- 2. Features of electric injury when struck by lightning.
- 3. Application of the defibrillator in clinical practice.
- 4. Safety precautions for a robot with a defibrillator.

Subject. Acute purulent-destructive diseases of the abdominal organs. Purulent inflammatory diseases of serous cavities.

- 1. Clinical symptoms, purulent-destructive diseases of the abdominal organs.
- 2. Clinical signs and diagnostics of pleurisy and pleural empyema.
- 3. Technique of puncture and drainage of the pleural cavity.

# Subject. General purulent (sepsis).

- 1. Evolution of the concept of sepsis after the Chicago Conciliation Conference of 1991.
- 2. Modern methods of bacteriological confirmation of sepsis.

# Subject. The technique of examination of surgical patients.

- 1. Work with the methodical guidance of writing a surgical case history.
- 2. Study of the scheme of writing the medical history.
- 3. Repetition of the symptomatic section of major surgical diseases.
- 4. Work on writing the Statuslocalis section.

# Subject. Acute specific infection.

- 1. Emergency prophylaxis of tetanus
- 2. Emergency prophylaxis of rabies
- 3. The introduction of serums and vaccines by Often

# Subject. Common Issues of Developmental Disabilities

- 1. The concept of congenital pathology.
- 2. Congenital malformations of the head, anomalies of the face and mouth, congenital fistulas and cysts of the neck, torticollis, spine defects.
- 3. Congenital tumors of the sacrococcygeal region,
- 4. Congenital malformations of the chest and chest and abdomen.
- 5. The concept of surgical treatment of malformations.

## Subject. Surgery of parasitic diseases

- 1. The concept of surgical parasitic diseases.
- 2. Echinococcosis. Brief representations about the cycle of development of the parasite. Ways of infection. Prevention of echinococcosis. Morphological forms of echinococcosis in humans.
- 3. Course of the disease. Diagnosis of an echinococcal cyst in the liver, lungs and other internal organs. Operative treatment of echinococcosis.
- 4. Alveococcosis: causes, diagnosis, surgical treatment.
- 5. Ascaridosis. Brief representations about the cycle of development of the parasite. Ways of infection. Prophylaxis of ascaridosis. Clinical manifestations of "surgical" ascariasis. Surgical treatment of surgical complications of ascaridosis.
- 6. Opisthorchiasis lesions of the liver, gall bladder, pancreas trematodes. Ways of infection. Prevention of opisthorchiasis. Clinical picture, diagnosis, surgical treatment of complications of opisthorchiasis.

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Ministry of Science and Higher Education of the Russian Federation Ulyanovsk State University	Форма	
F- Discipline work program		The Core was a series of the Core was a series

#### 11. Educational-methodical and information support

a) List of recommended literature for discipline "General surgery. introduction to specialty "for specialty "Medical business"

#### Core reading:

1. Gostishchev Victor Kuzmich. 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 : https://www.studentlibrary.ru/book/ISBN9785970449844.html

2 Makarov S. V.General Surgery Issues: educational edition for students of 2 course in "Medical business" and "Pediatrics". Part 1 / S. V. Makarov, V. K. Ostrovsky, A. V. Smolkina; Ulyanovsk State University, Institute of Medicine, Ecology and Physical Culture. - Ulyanovsk: UISU, 2018. - Текст на англ. яз.; Загл. с экрана. - Электрон. текстовые дан. (1 файл : 2,28 МБ). - Текст : электронный. <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/1411">http://lib.ulsu.ru/MegaPro/Download/MObject/1411</a>

#### Supplementary reading:

1 Lagoon, M. A. The Course of Faculty (Analitical) Surgery in Pictures, Tables and Schemes / M. A. Lagoon, B. S. Kharitonov, edited by professor S. V. Vertyankin - Москва: ГЭОТАР-Медиа, 2017. - 436 с. - ISBN 978-5-9704-3927-2. - Текст: электронный // ЭБС "Консультант студента": [сайт]. - URL: https://www.studentlibrary.ru/book/ISBN 9785970439272.html

2 Fractures of bones. Dislocations. First aid. Transport immobilization: electronic teaching method. allowance: Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. K. Ostrovsky, V. P. Demin. - Ulyanovsk: USU, 2018. - Загл. с экрана. - Электрон. текстовые дан. (1 файл : 0,62 Мб). - URL: <a href="https://portal.ulsu.ru/course/view.php?id=93894">https://portal.ulsu.ru/course/view.php?id=93894</a>. - Режим доступа: Портал ЭИОС УлГУ. - Текст: электронный.

3 . Resuscitation, reanimation, anesthesia : Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. V. Ggoevikh [et al.]. - Ulyanovsk : USU, 2019. - Загл. с экрана. - Электрон. текстовые дан. (1 файл : 0,42 Мб). - URL: <a href="https://portal.ulsu.ru/course/view.php?id=91674">https://portal.ulsu.ru/course/view.php?id=91674</a>. - Режим доступа: Портал ЭИОС УлГУ. - Текст : электронный

#### Educational-methodical reading:

1. Smolkina A. V.

Methodical instraction of professor for practical training for discipline "General surgery. introduction to specialty " for specialty 05.31.01 "Medical business" / A. V. Smolkina, S. V. Makarov. - Ulyanovsk: UISU, 2019. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11212">http://lib.ulsu.ru/MegaPro/Download/MObject/11212</a> - Режим доступа: ЭБС УлГУ. - Текст: электронный.

#### 2. Smolkina A. V.

Guidelines for independent work of students for the discipline «General surgery. introduction to specialty» for specialty 31.05.01 «Medical business» / A. V. Smolkina, S. V. Makarov. - Ulyanovsk : UISU, 2019. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11209">http://lib.ulsu.ru/MegaPro/Download/MObject/11209</a>. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

Agree	d:			1	1		
Head	Main Libraria	/	Stadolnikova D.R.	(ma	11	28/05/2019_	
	Officer Scientific Library	Name	<del></del>	Signature	Date		

#### в) software:

title agreement, ATP Consultant Plus Contract No., NEB RF, EBS IPRBooks, AIBS "MegaPro", System "Anti-plagiarism. University", Microsoft Windows, Microsoft Office 2016, MyOffice Standard, Automated information system "Vitacor RMIS" Statistica Basic Academic for Windows 13

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F- Discipline work program



- c) Professional databases, information and reference systems
- 1. Electronic library systems:
- 1.1. IPRbooks [Electronic resource]: electronic library system / group of companies IPR Media.
- Electron. Dan. Saratov, [2019]. Access mode: http://www.iprbookshop.ru.
- 1.2. YURAYT [Electronic resource]: electronic library system / LLC Electronic publishing house YURAYT. Electron. Dan. Moscow, [2019]. Access mode: <a href="https://www.biblio-online.ru">https://www.biblio-online.ru</a>.
- 1.3. Student consultant [Electronic resource]: electronic library system / Polytekhresurs LLC. Electron. Dan. Moscow, [2019]. Access mode: http://www.studentlibrary.ru/pages/catalogue.html.
- 1.4. Lan [Electronic resource]: electronic library system / EBS Lan. Electron. Dan. St. Petersburg, [2019]. Access mode: http://www.studentlibrary.ru/pages/catalogue.html https://e.lanbook.com.
- 1.5. Znanium.com [Electronic resource]: electronic library system / Znanium LLC. Electron. Dan. Moscow, [2019]. Access mode: http://www.studentlibrary.ru/pages/catalogue.html http://znanium.com.
- 2. ConsultantPlus [Electronic resource]: reference legal system. / Company "Consultant Plus" Electron. Dan. Moscow: ConsultantPlus, [2019].
- 3. Database of periodicals [Electronic resource]: electronic journals / LLC IVIS. Electron. Dan. Moscow, [2019]. Access mode: <a href="https://dlib.eastview.com/browse/udb/12">https://dlib.eastview.com/browse/udb/12</a>.
- 4. National Electronic Library [Electronic resource]: electronic library. Electron. Dan. Moscow, [2019]. Access mode: http://www.studentlibrary.ru/pages/catalogue.html https://neb.rf.
- 5. Electronic library of dissertations of the RSL [Electronic resource]: electronic library / FGBU RSL. Electron. Dan. Moscow, [2019]. Access mode: https://dvs.rsl.ruhttp://www.studentlibrary.ru/pages/catalogue.htmlhttps://e.lanbook.com/.
- 6. Federal information and educational portals:
- 6.1. Information system Single window of access to educational resources. Access mode: http://window.edu.ru
- 6.2. https://e.lanbook.com/ Federal portal Russian education. Access mode: http://www.edu.ru
- 7. Educational resources of UISU:
- 7.1. Electronic library of UISU. Access mode: http://lib.ulsu.ru/MegaPro/Web
- 7.2. UISU educational portal. Access mode: http://edu.ulsu.ru Agreed:

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# 12. EDUCATIONAL AND METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

#### - For practical classes.

Industrial practice rooms located at the clinical bases of the medical faculty named after .. T.Z. Biktimirova UISU:

- 1. 432008, Ulyanovsk region, Ulyanovsk, rn Zasviyazhsky, Likhacheva St., 12 State Healthcare Institution "Central Clinical Medical Unit named after V.A. Egorov (Agreement for the gratuitous use of property).
- 2. 432063, Ulyanovsk Region, the city of Ulyanovsk, Orenburgskaya Street, No. 27 State Healthcare Institution "Central City Clinical Hospital".

#### - 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)
- 2 ... .№ 332. 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 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 .... №209. 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,

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

screen, speakers kolonki. Wi-Fi access to the Internet, EIOS, EBS

# - For self-study.

- 1 ... ... No 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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# 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:

- 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.
- 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.
- 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."
- 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

General and operative surgery with topographic anatomy and a course of dentistry Head of the Department, MD, Professor

SMOLKINA A.V.

General and operative surgery with topographic anatomy and a course of dentistry Head of the Department, Associate Professor Makarov S.V.

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# LIST OF CHANGES of 1

Educational plan of discipline "General surgery. Introduction to the specialty"

Speciality 31.05.01. «General medicine»

Nº	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	30.08.2020	
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	SMOLKINA A.V.	da	30.08.2020	
2	Introduction of changes to item A Recommended Literature item 1 "Educational, methodological and information support of the discipline with the design of Appendix 2	SMOLKINA A.V.	My	30.00.2020	

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# Appendix 1

#### 11 "Educational, methodological and information support of the discipline"

c) Professional databases, information and reference systems

# 1. Electronic library systems:

- 1.1. IPRbooks: electronic library system: website / group of companies IPR Media. Saratov, [2020]. URL: http://www.iprbookshop.ru. Access mode: for registered. users. Text: electronic. 1.2. YURAYT: electronic library system: website / LLC Electronic publishing house YURAYT. Moscow, [2020]. URL: https://www.biblio-online.ru. Access mode: for registered. users. Text: electronic.
- 1.3. Student advisor: electronic library system: website / Polytekhresurs LLC. Moscow, [2020]. URL: http://www.studentlibrary.ru/catalogue/switch\_kit/x2019-128.html. Access mode: for registered. users. Text: electronic.
- 1.4. Lan: electronic library system: website / EBS Lan. St. Petersburg, [2020]. URL: http://www.studentlibrary.ru/pages/catalogue.html https://e.lanbook.com. Access mode: for registered. users. Text: electronic.
- 1.5. Znanium.com: electronic library system: website / Znanium LLC. Moscow, [2020]. URL: http://www.studentlibrary.ru/pages/catalogue.html http://znanium.com. Access mode: for registered. users. Text: electronic.
- 1.6. Clinical Collection: collection for medical universities, clinics, medical libraries // EBSCOhost: [portal]. URL: http://web.a.ebscohost.com/ehost/search/advanced?vid=1&sid=e3ddfb99-a1a7-46dd-a6eb-2185f3e0876a%40sessionmgr4008. Access mode: for authorization users. Text: electronic.
- **2.** ConsultantPlus [Electronic resource]: reference legal system. / LLC "Consultant Plus" Electron. Dan. Moscow: ConsultantPlus, [2020].

# 3. Databases of periodicals:

- 3.1. Database of periodicals: electronic journals / LLC IVIS. Moscow, [2020]. URL: https://dlib.eastview.com/browse/udb/12. Access mode: for authorization users. Text: electronic. 3.2. eLIBRARY.RU: scientific electronic library: site / Scientific Electronic Library LLC. Moscow, [2020]. URL: http://elibrary.ru. Access mode: for authorization users. Text: electronic 3.3. "Grebennikon": electronic library / ID Grebennikov. Moscow, [2020]. URL: https://id2.action-media.ru/Personal/Products. Access mode: for authorization. users. Text: electronic.
- **4. National Electronic Library**: Electronic Library: Federal State Information System: website / Ministry of Culture of the Russian Federation; RSL. Moscow, [2020]. URL: http://www.studentlibrary.ru/pages/catalogue.html https://neb.rf. Access mode: for users of the scientific library. Text: electronic.
- 5. SMART Imagebase // EBSCOhost: [portal]. URL:

https://ebsco.smartimagebase.com/?TOKEN=EBSCO-1a2ff8c55aa76d8229047223a7d6dc9c&custid=s6895741. - Access mode: for authorization. users. - Image: electronic.

# 6. Federal information and educational portals:

- 6.1. Single window of access to educational resources: federal portal / founder of FGAOU DPO TsRGOP and IT. URL: http://window.edu.ru/. Text: electronic.
- 6.2. Error! Invalid hyperlink object. Russian education: federal portal / founder of FGAOU DPO TsRGOP and IT. URL: http://www.edu.ru. Text: electronic.

# 7. Educational resources of UISU:

7.1. Electronic library of UISU: module ABIS Mega-PRO / Data Express LLC. - URL: http://lib.ulsu.ru/MegaPro/Web. - Access mode: for users of the scientific library. - Text: electronic. 7.2. UISU educational portal. - URL: http://edu.ulsu.ru. - Access mode: for register. users. - Text: electronic

Agreed:		200
_Zamestitel chief UITiT	_AV Klochkova/	/_05.06.2020

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# Appendix 2

# 11. Educational-methodical and information support

a) List of recommended literature for discipline "General surgery. introduction to specialty "for specialty "Medical business"

Core reading:

1. Gostishchev Victor Kuzmich. 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 : https://www.studentlibrary.ru/book/ISBN 9785970449844.html

2 Makarov S. V.General Surgery Issues: educational edition for students of 2 course in "Medical business" and "Pediatrics". Part 1 / S. V. Makarov, V. K. Ostrovsky, A. V. Smolkina; Ulyanovsk State University, Institute of Medicine, Ecology and Physical Culture. - Ulyanovsk: UISU, 2018. - Текст на англ. яз.; Загл. с экрана. - Электрон. текстовые дан. (1 файл : 2,28 МБ). - Текст : электронный. http://lib.ulsu.ru/MegaPro/Download/MObject/1411

Supplementary reading: 1 Lagoon, M. A. The Course of Faculty (Analitical) Surgery in Pictures, Tables and Schemes / M. A. Lagoon, B. S. Kharitonov, edited by professor S. V. Vertyankin - Москва : ГЭОТАР-Медиа, 2017. - 436 с. - ISBN 978-5-9704-3927-2. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970439272.html 2 Fractures of bones. Dislocations. First aid. Transport immobilization : electronic teaching method. allowance : Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. K. Ostrovsky, V. P. Demin. - Ulyanovsk : USU, 2018. 0.62 - Электрон. текстовые дан. (1 файл URL: https://portal.ulsu.ru/course/view.php?id=93894. - Режим доступа: Портал ЭИОС УлГУ. - Текст : - Загл. с экрана. электронный. 3 . Resuscitation, reanimation, anesthesia : Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. V. Ggoevikh [et al.]. - Ulyanovsk : USU, 2019. - Загл. с экрана. - Электрон. текстовые дан. (1 файл : 0,42 Мб). -URL: https://portal.ulsu.ru/course/view.php?id=91674. - Режим доступа: Портал ЭИОС УлГУ. - Текст : электронный

# Educational-methodical reading:

1. Smolkina A. V. Methodical instraction of professor for practical training for discipline "General surgery. introduction to specialty " for specialty 05.31.01 "Medical business" / A. V. Smolkina, S. V. Makarov. - Ulyanovsk: UISU, 2020. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11212">http://lib.ulsu.ru/MegaPro/Download/MObject/11212</a> - Режим доступа: ЭБС УлГУ. - Текст: электронный.

2. Smolkina A. V. Guidelines for independent work of students for the discipline «General surgery. introduction to specialty» for specialty 31.05.01 «Medical business» / A. V. Smolkina, S. V. Makarov. - Ulyanovsk: UlSU, 2020. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11209">http://lib.ulsu.ru/MegaPro/Download/MObject/11209</a>. - Режим доступа: ЭБС УлГУ. - Текст: электронный.

Agreed: Head Main Libraria Officer Scientific Library	/ Name	Stadolnikova D.R. /	5/2020
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# LIST OF CHANGES of 2

Educational plan of discipline "General surgery. Introduction to the specialty"

Speciality 31.05.01. «General medicine»

Nº	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	Smolkina A.V.	M	31.08.2021
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	Smolkina A.V.	M	31.08.2021

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#### Appendix 1

#### 11 "Educational, methodological and information support of the discipline"

c) Professional databases, information and reference systems

#### 1. Electronic library systems:

- 1.1. IPRbooks: electronic library system: website / group of companies IPR Media. Saratov, [2021]. URL: http://www.iprbookshop.ru. Access mode: for registered. users. Text: electronic.
- 1.2. YURAYT: electronic library system: website / LLC Electronic publishing house YURAYT. Moscow, [2021]. URL: https://urait.ru. Access mode: for registered. users. Text: electronic.
- 1.3. Student advisor: electronic library system: website / Polytekhresurs LLC. Moscow, [2021]. URL: https://www.studentlibrary.ru/cgi-bin/mb4x. Access mode: for registered. users. Text: electronic.
- 1.4. Doctor's consultant: electronic library system: website / LLC Graduate School of Health Organization and Management-Comprehensive Medical Consulting. Moscow, [2021]. URL: https://www.rosmedlib.ru. Access mode: for registered. users. Text: electronic.
- 1.5. Large medical library: electronic library system: website / LLC Bukap. Tomsk, [2021]. URL: https://www.books-up.ru/ru/library/. Access mode: for registered. users. Text: electronic.
- 1.6. Lan: electronic library system: website / EBS Lan. St. Petersburg, [2021]. URL: http://www.studentlibrary.ru/pages/catalogue.html https://e.lanbook.com. Access mode: for registered. users. Text: electronic.
- 1.7. Znanium.com: electronic library system: website / Znanium LLC. Moscow, [2021]. URL: http://www.studentlibrary.ru/pages/catalogue.html http://znanium.com. Access mode: for registered. users. Text: electronic.
- 1.8. Clinical Collection: collection for medical universities, clinics, medical libraries // EBSCOhost: [portal].

   URL: http://web.b.ebscohost.com/ehost/search/advanced?vid=1&sid=9f57a3e1-1191-414b-8763-e97828f9f7e1%40sessionmgr102. Access mode: for authorization. users. Text: electronic.
- 1.9. Russian as a foreign language: electronic educational resource for foreign students: website / IPR Media LLC. Saratov, [2021]. URL: https://ros-edu.ru. Access mode: for registered. users. Text: electronic
- 2. Konsul'tantPlyus [Elektronnyy resurs]: spravochnaya pravovaya sistema. /OOO «Konsul'tant Plyus» Elektron. dan. Moskva : Konsul'tantPlyus, [2021].
- 3. Bazy dannykh periodicheskikh izdaniy:
- 3.1. Baza dannykh periodicheskikh izdaniy : elektronnyye zhurnaly / OOO IVIS. Moskva, [2021]. URL: https://dlib.eastview.com/browse/udb/12. Rezhim dostupa : dlya avtoriz. pol'zovateley. Tekst : elektronnyy.
- 3.2. eLIBRARY.RU: nauchnaya elektronnaya biblioteka : sayt / OOO Nauchnaya Elektronnaya Biblioteka. Moskva, [2021]. URL: http://elibrary.ru. Rezhim dostupa : dlya avtoriz. pol'zovateley. Tekst : elektronnyy
- 3.3. «Grebennikon» : elektronnaya biblioteka / ID Grebennikov. Moskva, [2021]. URL: https://id2.action-media.ru/Personal/Products. Rezhim dostupa : dlya avtoriz. pol'zovateley. Tekst : elektronnyy.
- **4. Natsional'naya elektronnaya biblioteka** : elektronnaya biblioteka : federal'naya gosudarstvennaya informatsionnaya sistema : sayt / Ministerstvo kul'tury RF ; RGB. Moskva, [2021]. URL:http://www.studentlibrary.ru/pages/catalogue.html https://neb.rf. Rezhim dostupa : dlya pol'zovateley nauchnoy biblioteki. Tekst : elektronnyy.
- **5. SMART Imagebase** // EBSCOhost : [portal]. URL: https://ebsco.smartimagebase.com/?TOKEN=EBSCO-

la2ff8c55aa76d8229047223a7d6dc9c&custid=s6895741. – Rezhim dostupa : dlya avtoriz. pol'zovateley. – Izobrazheniye : elektronnyye.

- 6. Federal'nyye informatsionno-obrazovatel'nyye portaly:
- 6.1. Yedinoye okno dostupa k obrazovatel'nym resursam : federal'nyy portal / uchreditel' FGAOU DPO TSRGOP i IT. URL: http://window.edu.ru/ . Tekst : elektronnyy.
- 6.2. **Oshibka!** Nedopustimyy ob"yekt giperssylki. Rossiyskoye obrazovaniye : federal'nyy portal / uchreditel' FGAOU DPO TSRGOP i IT. URL: http://www.edu.ru. Tekst : elektronnyy.
- 7. Obrazovateľ nyye resursy UlGU:
- 7.1. Elektronnaya biblioteka UIGU : modul' ABIS Mega-PRO / OOO «Data Ekspress». URL: http://lib.ulsu.ru/MegaPro/Web. Rezhim dostupa : dlya pol'zovateley nauchnoy biblioteki. Tekst : elektronnyy.

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# Appendix 2

#### 11. Educational-methodical and information support

a) List of recommended literature for discipline "General surgery. introduction to specialty "for specialty "Medical business"

#### Core reading:

- 1. Gostishchev Victor Kuzmich. 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 : https://www.studentlibrary.ru/book/ISBN9785970449844.html
  - 2 Makarov S. V.General Surgery Issues: educational edition for students of 2 course in "Medical business" and "Pediatrics". Part 1 / S. V. Makarov, V. K. Ostrovsky, A. V. Smolkina; Ulyanovsk State University, Institute of Medicine, Ecology and Physical Culture. Ulyanovsk: UISU, 2018. Текст на англ. яз.; Загл. с экрана. Электрон. текстовые дан. (1 файл : 2,28 МБ). Текст : электронный. <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/1411">http://lib.ulsu.ru/MegaPro/Download/MObject/1411</a>

#### Supplementary reading:

- 1 Lagoon, M. A. The Course of Faculty (Analitical) Surgery in Pictures, Tables and Schemes / M. A. Lagoon, B. S. Kharitonov, edited by professor S. V. Vertyankin Москва: ГЭОТАР-Медиа, 2017. 436 с. ISBN 978-5-9704-3927-2. Текст : электронный // ЭБС "Консультант студента" : [сайт]. URL : <a href="https://www.studentlibrary.ru/book/ISBN9785970439272.html">https://www.studentlibrary.ru/book/ISBN9785970439272.html</a>
- 2 Fractures of bones. Dislocations. First aid. Transport immobilization: electronic teaching method. allowance: Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. K. Ostrovsky, V. P. Demin. Ulyanovsk: USU, 2018. Загл. с экрана. Электрон. текстовые дан. (1 файл : 0,62 Мб). URL: <a href="https://portal.ulsu.ru/course/view.php?id=93894">https://portal.ulsu.ru/course/view.php?id=93894</a>. Режим доступа: Портал ЭИОС УлГУ. Текст: электронный.
- 3 . Resuscitation, reanimation, anesthesia : Study Guide (e-course) / A. V. Smolkina, S. V. Makarov, V. V. Ggoevikh [et al.]. Ulyanovsk : USU, 2019. Загл. с экрана. Электрон. текстовые дан. (1 файл : 0,42 Мб). URL: <a href="https://portal.ulsu.ru/course/view.php?id=91674">https://portal.ulsu.ru/course/view.php?id=91674</a>. Режим доступа: Портал ЭИОС УлГУ. Текст : электронный

#### **Educational-methodical reading:**

1. Smolkina A. V.

Methodical instraction of professor for practical training for discipline "General surgery. introduction to specialty "for specialty 05.31.01 "Medical business" / A. V. Smolkina, S. V. Makarov. - Ulyanovsk: UlSU, 2021. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11212">http://lib.ulsu.ru/MegaPro/Download/MObject/11212</a> - Режим доступа: ЭБС УлГУ. - Текст: электронный.

2. Smolkina A. V.

Guidelines for independent work of students for the discipline «General surgery. introduction to specialty» for specialty 31.05.01 «Medical business» / A. V. Smolkina, S. V. Makarov. - Ulyanovsk: UlSU, 2021. - Неопубликованный ресурс; На англ. яз. - URL: <a href="http://lib.ulsu.ru/MegaPro/Download/MObject/11209">http://lib.ulsu.ru/MegaPro/Download/MObject/11209</a>. - Режим доступа: ЭБС УлГУ. - Текст: электронный.

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