

MINISTRY OF HEALTH OF UKRAINE  
ODESSA NATIONAL MEDICAL UNIVERSITY



"I APPROVE"

Vice-rector for scientific and pedagogical work  
prof. \_\_\_\_\_ Shmakova IP

2020

**STUDY PROGRAM ON THE DISCIPLINE**

**"SURGICAL DISEASES"**

**training of specialists of the second (master's) level of higher education in the field of  
knowledge 22 "Health Care" in higher educational institutions of the Ministry of Health of  
Ukraine in the specialty 222 "Medicine"**

Faculty: medical;  
form of study: full-time.  
Department of Robotic and Endoscopic Surgery

The scope of the discipline:

The structure of the discipline	Number of hours				Types of control
	Total hours / credits	Auditorial		ASW	
		Lecture	Practice		
Surgical diseases	270/9	-	140 / 4.7	130 / 4.3	Current control, exam
Total	270/9	-	140 / 4.7	130 / 4.3	

The work program consisted of: prof. Malinovsky AV, assistant. Korchovy DV, on the basis of the educational-professional program of the second level of higher education for the preparation of masters in the specialty 222 "Medicine" ONMedU, approved by the Academic Council of ONMedU from 04.06.2020 (Protocol № 11).

The program was discussed at a meeting of the department. Protocol № 1 dated August 27, 2020  
Head of the Department \_\_\_\_\_ MD, prof. Malinovsky AV

The program was approved at a meeting of the subject-cycle methodical commission on surgical disciplines. Protocol №1 dated 29.08.2020

Chairman of the subject cycle methodical commission on surgical disciplines  
\_\_\_\_\_ prof. Mishchenko VV

The program was approved at a meeting of the Central Coordination and Methodological Council of ONMedU. Protocol № 1 dated 16.09.2020

**Additions and changes in the work program for the 20\_\_ - 20\_\_ academic year.**

The following changes are made to the work program:

The work program was considered and approved at the meeting of the department.

Protocol № \_\_ from \_\_.\_\_. 202\_\_

Head of the department \_\_\_\_\_ prof. Malinovsky AV

The changes were approved at a meeting of the subject cycle methodological commission.

Protocol № \_\_ from \_\_.\_\_. 202\_\_

Chairman of the subject cycle methodical commission \_\_\_\_\_ prof. Mishchenko VV

I approve the changes and additions

Vice-rector for scientific and pedagogical work \_\_\_\_\_

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## INTRODUCTION

The program of study of the discipline "Surgical Diseases" is made in accordance with the educational-professional program of the second level of higher education for master's degree in 222 "Medicine" ONMedU, approved by the Academic Council of ONMedU from 04.06.2020 (Protocol № 11).

## 1. EXPLANATORY NOTE

**The subject** study of the discipline "Surgical Diseases" is the definition of diagnostic methods, algorithms for conservative and surgical treatment of surgical diseases depending on the symptomatic and syndromic features of their clinical manifestations; study of differential diagnosis of diseases of the abdominal cavity, extraperitoneal space and chest, identification of principles of postoperative treatment and rehabilitation of patients with surgical pathology, study of risk factors for complications, study of laboratory and instrumental studies.

**Object of activity** - preservation of public health, prevention and treatment of surgical human diseases.

### Interdisciplinary connections

Academic discipline

*and)based on the study of students:*

- biological chemistry - PN.026 - interpret the biochemical mechanisms of pathological processes in the human body and the principles of their correction;
- histology PN.029 - interpret the microscopic and submicroscopic structure of tissues;
- of physiology PN.037 - explain the physiological basis of methods for studying the function of the organism;
- pharmacology PN.040 - explain the main mechanisms of biochemical action and principles of application of different classes of pharmacological agents;
- medical and biological physics - PN.045 - to explain the physical basis of diagnostic and physiotherapeutic treatment methods used in medical equipment;
- immunology - PN.052 - to interpret the main mechanisms of formation of the immune response of the human body;
- identify different clinical variants and complications of the most common surgical diseases - PN.027 (medical case);
- demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in surgery PP.029;
- provide emergency care for the most common surgical diseases - PP.034 (medical case);
- plan examination of the patient, interpret the results of laboratory and instrumental studies in the most common surgical diseases and their complications PP.035 (medical case);
- to carry out differential diagnosis, substantiate and formulate a preliminary diagnosis of the most common surgical diseases. - PP.036. (medical case);
- to determine the plan of conservative and operative treatment of surgical diseases depending on pathogenetic factors and severity of a condition of the patient PP.050 (medical business);
- to carry out primary and secondary prevention of the most widespread surgical diseases - PP.038 (medical business);
- diagnose complicated and atypical forms of the most common surgical diseases PP.065 (medical case);
- provide emergency care in the clinic of surgical diseases and perform urgent surgical manipulations PP.069 (medical case).

*b) lays the foundations for the study of students:*

- infectious diseases: identify the main clinical symptoms that form a characteristic syndrome of the most common infectious diseases of PP. 028 - (medical case);
- epidemiology: to interpret the causes and patterns of development of the epidemic process PP.206 - (medical case);
- oncology: to determine the tactics of examination and management of patients with suspected malignancy (PP.135 - medical case);

*c) lays the foundations healthy lifestyle and prevention of various surgical diseases in the process of life.*

The educational process is organized according to the credit transfer system in accordance with the requirements of the Bologna process.

The program of the discipline is defined as "Surgical Diseases" and is divided into 2 sections "General Questions of Surgery" and "Clinical Manifestations of Surgical Diseases". The amount of student workload is described in ECTS credits - credit credits, which are credited to students upon successful completion of the relevant module (credit).

The credit-transfer system of the educational process encourages students to study systematically during the academic year.

Types of classes according to the curriculum are:

- a) practical classes;
- b) independent work of students.

Practical classes according to the method of their organization are clinical, because they provide:

- supervision of patients in surgical departments;
- mastering the methods of endoscopic examination;
- fibrogastroscopy, ultrasound of the abdominal cavity, rectoromanoscopy, X-ray examination;
- diagnosis on the basis of generalization of the received data;
- appointment of an adequate course of treatment for the disease;
- development of practical skills in the class of practical skills.

Clinical practical classes consist of the following stages. The preparatory stage consists of checking the presence of students and determining the topic and structure of the lesson.

The main stage includes determining the ascending level of students' knowledge and consideration of the main issues of the topic of the lesson. This part of the lesson is about 20% of the practical time. After that, students under the guidance of a teacher supervise 3-4 thematic patients. At the end of the lesson the teacher finds out the assimilation by students of the material of the practical lesson, corrects the level of knowledge and skills.

**Current educational activity of students** controlled in practical classes in accordance with specific objectives. The following means of diagnosing the level of students' training are used: computer tests, solving situational problems, curation of thematic patients, interpretation of laboratory and instrumental research data, control of practical skills.

The final control of mastering the program is carried out at the end of the cycle.

Assessment of student achievement in the discipline is a rating and is set on a multi-point scale as an arithmetic mean of the material and has a definition of the ECTS system and the traditional scale adopted in Ukraine.

## 2. PURPOSE OF STUDYING THE COURSE

The purpose of the study of surgical diseases - mastering the methods of diagnosis, treatment and prevention of surgical diseases, especially the most common and urgent.

### 2.1 The ultimate goals of the discipline:

- To determine methods of diagnostics, algorithm of conservative and operative treatment of surgical diseases of digestive, cardiovascular and respiratory systems depending on symptomatic and syndromic features of their clinical manifestations;
- to master the differential diagnosis of diseases of the abdominal cavity, extraperitoneal space and chest;
- interpret the results of laboratory and instrumental examination of the digestive system of the cardiovascular and respiratory systems;
- provide emergency medical care for urgent surgical diseases of the digestive system, cardiovascular and respiratory systems;
- demonstrate the ability to keep medical records in the clinic of surgical diseases.

### 2.2 Specific objectives:

- to determine diagnostic methods, algorithm of conservative and operative treatment of surgical diseases of digestive system, cardiovascular and respiratory systems depending on symptomatic and syndromic features of their clinical manifestations;
- to master the differential diagnosis of diseases of the abdominal cavity, outside the peritoneal space and chest;
- determine the principles of postoperative treatment and rehabilitation of patients with surgical pathology;
- identify modern methods of diagnosis and treatment, postoperative care and rehabilitation of surgical diseases;
- learn the risk factors for complications of diseases of the digestive system of the cardiovascular and respiratory systems;
- interpret the results of laboratory and instrumental studies of the digestive system, cardiovascular and respiratory systems;
- demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in surgery;
- to make a prognosis of life and efficiency in surgical diseases of the digestive system of the cardiovascular and respiratory systems;
- interpret the general principles of treatment, rehabilitation and prevention of the most common surgical diseases of the digestive system, cardiovascular and respiratory systems;
- demonstrate the ability to maintain medical records in the clinic of surgical diseases;
- provide emergency medical care for urgent diseases of the digestive system, cardiovascular and respiratory systems.

### 2.3 Theoretical questions

The main tasks of studying the discipline "surgical diseases" are the acquisition of knowledge on the following topics:

- abdominal pain, assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity;
- dysphagia, vomiting and defecation syndrome;
- acute intestinal obstruction syndrome;
- acute abdomen syndrome;

- local and widespread purulent-inflammatory processes of the abdominal cavity and peritoneum;
- mechanical jaundice syndrome;
- bleeding from the digestive tract;
- life trauma;
- features of the course of surgical diseases in pregnant women;
- the course of acute diseases in patients with infectious pathology;
- modern methods of diagnosis and treatment of diseases of the cardiovascular and respiratory systems;
- chest pain syndrome, respiratory and heart failure;
- surgical pathology of the lungs and pleura;
- purulent diseases, oncological pathology, traumatic injuries;
- aortic arch syndrome;
- limb ischemia syndrome;
- problems with thrombosis and embolism;
- venous disease.

## **2.4 Practical skills**

- Determination of blood groups and temporary cessation of external bleeding.
- Primary surgical treatment.
- Transport immobilization.
- Pleural puncture.
- Technique of laparocentesis.
- Catheterization of the bladder.
- Finger examination of the rectum.

## **2.5 Program competencies, the formation of which is provided by the discipline.**

Discipline ensures that students acquire the following competencies.

### **2.5.1 Integral:**

ability to solve typical and complex specialized tasks and practical problems in professional activities in the field of health care or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements;

### **2.5.2 General competencies (GC) (ordinal numbering according to the Educational-professional program "Medicine" from 04.06.2020):**

GC 1 Ability to abstract thinking, analysis and synthesis.

GC 2 Ability to know and understand the subject area and professional activity.

GC 3 Ability to communicate in the state language.

GC 4 Ability to learn and master modern knowledge, use information and communication technologies; ability to search, process and analyze information from various sources.

GC 5 Ability to adapt and make an informed decision in a new situation.

GC 6 Ability to work in a team.

GC 9 Ability to act on the basis of ethical considerations, socially responsible and conscious.

### **2.5.3 Special (professional, subject) competencies (SC):**

SC1 Communication skills and clinical examination of the patient.

SC2 Ability to determine the list of required clinical, laboratory and instrumental studies and evaluate their results.

SC3 Ability to establish a preliminary and clinical diagnosis of the disease.

SC4 Ability to determine the principles of treatment of diseases, the required mode of work and rest and the nature of nutrition.

SC5 Ability to diagnose emergencies.

SC6 Ability to determine tactics and provide emergency medical care.

SC8 Ability to perform medical manipulations.

infectious diseases.

SC12 Ability to determine the tactics of management of persons subject to dispensary supervision.

SC13 Ability to conduct a performance examination.

SC14 Ability to keep medical records.

## 2.6 Detailing according to NQF descriptors in the form of "Competence Matrix".

Competence matrix

№	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
1	2	3	4	5	6
<b>Integral competence</b>					
Ability to solve typical and complex specialized problems and practical problems in professional activities in the field of health care or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements					
<b>General competencies</b>					
1	GC 1. Ability to abstract thinking, analysis and synthesis.	Know the methods of analysis, synthesis and further modern learning	Be able to analyze information, make informed decisions, be able to acquire modern knowledge	Establish appropriate links to achieve goals.	Be responsible for timely acquisition of modern knowledge
2	GC 2. Ability to know and understand the subject area and professional activity	Have knowledge of the structure of professional activity	Be able to carry out professional activities that require updating and integration of knowledge	Ability to effectively form a communication strategy in professional activities	To be responsible for professional development, ability to further professional training with a high level of autonomy
3	GC 3. Ability to communicate in the state language.	Know the state language at a sufficient level for communication in the medical field and maintaining appropriate documentation.	Be able to communicate in the state language.	Sharing verbal information with patients and colleagues with positive feedback.	Be responsible for the timely acquisition of modern knowledge

4	GC 4. Ability to learn and master modern knowledge, use information and communication technologies; ability to search, process and analyze information from various sources.	Know the current trends in the industry and analyze them	Be able to analyze professional information, make informed decisions, acquire modern knowledge	Establish appropriate links to achieve goals.	Be responsible for the timely acquisition of modern knowledge
5	GC 5. Ability to adapt and make an informed decision in a new situation.	Know the types and methods of adaptation, principles of action in a new situation	Be able to apply the means of self-regulation, be able to adapt to new situations (circumstances) of life and work	Establish appropriate connections to achieve results.	Be responsible for the timely use of self-regulatory methods.
6	GC 6 Ability to work in a team.	Know the tactics and strategies of communication, laws and ways of communicative behavior.	Be able to choose ways and strategies of communication to ensure effective teamwork	Use communication strategies	Be responsible for the choice and tactics of communication
7	GC 9. Ability to act on ethical considerations	Know the basics of ethics and deontology	Be able to apply ethical and deontological norms and principles in professional activities	The ability to convey to patients, their families, colleagues their professional position	Be responsible for the implementation of ethical and deontological norms and principles in professional activities
<b>Special (professional, subject) competencies</b>					
1	SC1 Communication skills and clinical examination of the patient.	Know the possible complaints and the sequence of collecting information about the disease in the patient. Know the sequence of application of the method of objective examination of the patient.	Be able to consistently collect all information about the disease from the patient's words. Be able to perform all regulated methods of examination in the appropriate sequence and	Ability to establish interpersonal relationships. Ability to establish contact with the patient during an objective examination.	To be responsible for the implementation of ethical and deontological norms, for the correctness and interpretation of the results obtained during the objective examination of the patient.



			evaluate the results.		
2	SC2. Ability to determine the list of required clinical, laboratory and instrumental studies and evaluate their results.	Have specialized knowledge of methods of laboratory and instrumental research	Be able to analyze the results of laboratory and instrumental research methods	Ability to communicate to the patient and specialists the list and results of research	Be responsible for the correctness and timeliness of relevant research and interpretation of their results
	SC3. Ability to establish a preliminary and clinical diagnosis of the disease.	Have knowledge of clinical manifestations of surgical diseases, modern classifications, criteria for establishing surgical diagnoses.	Be able to establish a preliminary and clinical diagnosis of surgical pathology in accordance with modern classifications and criteria for establishing surgical diagnoses.	It is reasonable to form and bring to the patient and specialists the conclusions of the diagnostic results.	Be responsible for timely and correct diagnosis.
	SC4 Ability to determine the principles of treatment of diseases, the required mode of work and rest and the nature of nutrition.	Have specialized knowledge of algorithms and treatment schemes for surgical diseases.	Be able to choose the necessary set of therapeutic measures depending on the pathological condition.	It is reasonable to form and bring to the patient and specialists conclusions about the appropriate treatment of the patient. Be able to record appointments in medical records.	Be responsible for the timeliness and correctness of the choice of treatment program for a patient with surgical pathology.
	SC5 Ability to diagnose emergencies.	Have knowledge of clinical manifestations and stages of development of emergencies	Be able to quickly detect and diagnose emergencies, be able to organize an appropriate diagnostic program.	Use communication strategies and interpersonal skills.	Be responsible for the timely detection and assessment of the patient's condition
	SC6 Ability to determine tactics and provide emergency medical care.	Have specialized knowledge about urgent human conditions; know the algorithms of first aid.	Be able to consistently and correctly perform first aid measures in	Use communication strategies and interpersonal skills.	Be responsible for the correctness and consistency of first aid.

			accordance with the emergency.		
	SC8 Ability to perform medical manipulations.	Have specialized knowledge of anatomy and normal physiology. Knowledge of algorithms for performing medical procedures and manipulations: blood pressure measurement, venipuncture, vein catheterization, intravenous transfusion, subcutaneous, intramuscular injection, bladder catheterization, gastric lavage with a probe, enema, shaving the operating field.	Be able to perform a medical procedure or perform medical manipulation according to the algorithm.	It is reasonable to form and bring to the patient's conclusions about the need for a particular medical procedure or manipulation.	Be responsible for the quality of a medical procedure or manipulation.
	SC12 Ability to determine the tactics of management of persons subject to dispensary supervision.	Know the tactics of management of persons subject to dispensary supervision.	Be able to organize and conduct dispensary supervision of persons with surgical pathology.	It is reasonable to form and bring to the patient and specialists conclusions about the appropriate complex of dispensary supervision of the patient.	To be responsible for the correctness and timeliness of planning and conducting dispensary supervision.
	SC13 Ability to conduct a performance examination.	To have knowledge about the terms and degree of incapacity of surgical patients of different	Be able to conduct an examination of the efficiency of surgical patients of various nosofoms.	It is reasonable to form and bring to the patient and specialists conclusions about the	To be responsible for the correctness and timeliness of the examination of working capacity.

		nosoforms, criteria for recovery.		efficiency of a patient with surgical pathology.	
	SC14 Ability to keep medical records.	Have knowledge of the availability and principles of medical records.	Be able to keep all necessary medical documentation in a timely manner and in full.	Establish appropriate links to achieve goals.	Be responsible for the correctness and timeliness of medical records.

## 2.7 Program learning results for the discipline:

PLR 1 Have communication skills and clinical examination of the patient. Collect data on patient complaints, medical history, life history.

PLR 2 Evaluate diagnosis information using a standard procedure, based on the results of laboratory and instrumental studies. Determine the list of necessary clinical, laboratory and instrumental studies and evaluate their results (according to list 4).

PLR 3 Highlight the leading clinical symptom or syndrome (according to list 1). Establish a preliminary diagnosis, make a differential diagnosis and determine the clinical diagnosis of the disease (according to list 2).

PLR 4 To determine the principles of treatment of diseases, the necessary mode of work and rest, the nature of nutrition (according to list 2).

PLR 5 Diagnose emergencies (according to list 3).

PLR 6 Define tactics and provide emergency medical care (according to list 3).

PLR 8 Perform medical manipulations (according to list 5).

PLR 12 To determine the tactics of management of persons subject to dispensary supervision (children, pregnant women, employees whose professions provide for mandatory dispensary examination).

PLR 13 To carry out examination of working capacity.

PLR 14 Maintain medical records

PLR 17 Plan, implement and analyze measures for the organization and integration of medical care.

PLR 18 Adhere to the requirements of ethics, bioethics and deontology in their professional activities.

## 2.8 Learning outcomes for the discipline:

### 2.8.1 Know:

- modern concepts of domestic and foreign theoretical and practical surgery;
- basic principles of organization of surgical care for the population of Ukraine;
- new technologies in surgery;
- systemic inflammatory response syndrome in surgical patients;
- shock in surgical patients; causes, diagnosis, treatment tactics;
- critical conditions in surgical patients, acute respiratory distress syndrome of the abdominal cavity, collapse;
- purulent diseases of the skin and soft tissues;
- purulent diseases of the hands and fingers;
- rules of antibiotic therapy in the prevention and treatment of surgical infection;
- assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity;

- differential diagnosis of dysphagia, vomiting and defecation;
- acute intestinal obstruction syndrome;
- acute abdomen syndrome - diagnosis, differential diagnosis, treatment tactics;
- diagnosis and treatment of local and common purulent-inflammatory processes of the abdominal cavity.
- differential diagnosis of mechanical and parenchymal jaundice;
- diagnosis and treatment of bleeding from the digestive tract;
- abdominal injuries - diagnosis, treatment;
- features of the course of surgical diseases in pregnant women, the elderly and infectious patients;
- surgical pathology of the lungs and pleura - pneumothorax, hemothorax, purulent diseases, lung cancer - principles of diagnosis and treatment;
- diseases of the vascular system - aortic arch syndrome, limb ischemia syndrome, problems with thrombosis and embolism, venous diseases - diagnosis and treatment.

### **2.8.2 Be able to:**

- Determine the blood type.
- Perform temporary cessation of bleeding.
- Perform transport immobilization.
- Catheterize the bladder
- Analyze and evaluate radiographs of patients with surgical pathology.
- Perform primary surgical treatment of the wound.
- Ensuring patency of the upper respiratory tract.
- Perform artificial lung ventilation.
- Perform external heart massage.
- Perform a pleural puncture.
- Examine the breast.
- Perform a finger examination of the rectum.

### **2.8.3 Master the skills:**

- Determination of blood groups and temporary cessation of external bleeding.
- Primary surgical treatment.
- Transport immobilization.
- Pleural puncture.
- Technique of laparocentesis.
- Catheterization of the bladder.
- Finger examination of the rectum.

### 3. STRUCTURE AND CONTENT OF THE COURSE

#### 3.1 Structured curriculum for the discipline "SURGICAL DISEASES":

The structure of the discipline	Number of hours / of them			CPC	Year of study	Types of control
	Total hours / credits	Auditorium				
		Lecture.	Practice.			
Surgical diseases	270/9	-	140	130	6	Current control, Exam
<b>Total</b>	270/9	-	140 / 4.7	130 / 4.3		

**Note: 1 ECTS credit - 30 hours.**

**Classroom load - 52%, VTS - 48%**

#### 3.2 Program of the discipline

##### 3.2.1 Content module 1. General issues in surgery:

***Topic 1. History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery.***

Development of surgery on the territory of Ukraine in ancient times. Features of the formation of surgery in Ukraine in the 18-19 centuries. The role of IV Buyalsky, PP Pelekhin, MI Pirogov, MV Sklifosovsky, MI Yelinsky, VO Karavaeva, VF Grube, AIPridza in the formation of practical and theoretical surgery in Ukraine. The development of surgery in Ukraine in the 20th century. The role of Ukrainian scientists MP Trinkler, MM Volkovich, OP Crimea in the development of Ukrainian surgery in the first half of the 20th century. Contribution to the development of surgical science in Ukraine by academicians MM Amosov and OO Shalimov. The importance of congresses of surgeons of Ukraine in the organization of surgical care. Deontological relationships in surgical practice (doctor-colleague, doctor-patient).

*Manual training simulator:* demonstration of training on the simulator.

***Topic 2. New technologies in surgery.***

Modern methods of diagnosis and treatment. Videoendoscopic operations in surgery. Basic principles of operative endoscopic technique. Biliary endoscopic surgery. Laparoscopic methods of operations on the liver, esophagus, peptic ulcers. Laparoscopic appendectomy, splenectomy, operations on the organs of the retroperitoneal space. Videothoracoscopic surgery. Endoscopic retrograde cholangiopancreatography. Endoscopic papillotomy. Puncture treatment under ultrasound control.

***Topic 3. Syndrome of systemic inflammatory response in surgical patients.***

Pathogenesis. Significance in various diseases and injuries. Therapeutic tactics.

***Topic 4. Shock in surgical patients. Reasons. Diagnosis, treatment tactics.***

Pathogenesis of shock development. Stages of shock development. Types of shock - anaphylactic, hemorrhagic, traumatic, septic, cardiogenic shock. Features of the clinical picture depending on the type of shock. Diagnostic algorithm. Treatment of various clinical types of shock. Providing emergency care in traumatic shock during hostilities. Transport immobilization in military conditions

as a means of shock prevention. Temporary cessation of bleeding as a means of preventing hemorrhagic shock during war.

*Practical training:* determination of blood groups and rhesus factor (classes in a clinical laboratory). Compatibility tests for blood transfusions.

***Topic 5. Critical conditions in surgical patients.***

Acute respiratory distress syndrome, abdominal syndrome, collapse. Clinical picture, diagnosis, treatment of acute respiratory distress syndrome. Compartment syndrome - causes, diagnosis, prevention. Collapse - causes, clinical picture, differential diagnosis, emergency care.

*Manual training:* catheterization of the bladder.

***Topic 6. Purulent diseases of the skin and soft tissues. Diagnosis, differential diagnosis.***

***Methods of conservative and surgical treatment.***

Classification of purulent soft tissue infection. Principles of treatment of purulent wounds. Purulent diseases of the skin and subcutaneous tissue, their diagnosis and treatment. Purulent inflammation of the cellular spaces. Features of the course and principles of treatment of purulent soft tissue infection of the face. Features of the clinic and treatment of inflammatory processes in patients with diabetes mellitus. Methods of surgical operations and drainage of purulent cavities. Prevention of inflammatory soft tissue diseases. Primary surgical treatment as a means of prevention of purulent complications during the war.

***Topic 7. Purulent diseases of the hands and fingers. Clinic, diagnostics, differential diagnosis. Methods of conservative and surgical treatment.***

Anatomy of the hand. Methods of examination of a patient with purulent diseases of the hand. Classification of purulent diseases of the hand. Indications for conservative and surgical treatment of patients with paronychia. Features of incisions and drainage during operations on the hand. Clinic and diagnosis of superficial and deep phlegmon of the hand. Prevention of inflammatory processes on the hand. Basic principles of functional treatment in the postoperative period. Issues of occupational rehabilitation after hand surgery.

***Topic 8. Rules of antibiotic therapy in the prevention and treatment of surgical infection.***

Classification of surgical infection. Pathogens of surgical infection. Local and general clinical manifestations of surgical infection depending on age, comorbidities and virulence of the microflora. Acute purulent inflammatory processes of the skin and subcutaneous tissue. Principles of conservative and operative treatment of acute purulent diseases. Etiology, clinic and treatment of anaerobic infection. Rational antibiotic therapy of surgical infection.

### **3.2.2 Content module 2. Clinical manifestations of surgical diseases:**

***Topic 9. Abdominal pain, assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity.***

Pseudoabdominal pain. Features of pain syndrome in peritonitis. Features of pain at perforation of a hollow body. Features of pain syndrome in surgical pathology: in the upper abdomen (acute cholecystitis, acute pancreatitis, perforation of gastric ulcer and 12 items of the intestine). Features of local pain in acute appendicitis.

***Topic 10. Syndrome of dysphagia, vomiting and the act of defecation.***

Significance in diagnosis and differential diagnosis. Medical tactics. Differential diagnosis of dysphagia. Features of vomiting in acute pancreatitis, acute cholecystitis, perforation of the hollow organ, bleeding into the lumen of the digestive tract. Violation of the act of defecation in surgical

diseases - constipation, diarrhea. Discoloration of feces with bleeding. Finger examination of the rectum.

***Topic 11. Syndrome of acute intestinal obstruction.***

Classification of intestinal obstruction. Dynamic intestinal obstruction - etiology, clinical picture, diagnosis, differential diagnosis, treatment, prevention. Mechanical intestinal obstruction - etiology, pathogenesis, clinic, differential diagnosis of obstructive and strangulation intestinal obstruction. Tactics of the surgeon depending on the form of intestinal obstruction. Preoperative preparation of patients. Correction of electrolyte imbalance. The choice of method of operation depending on the type of obstruction. Diagnosis and prevention of postoperative complications.

***Topic 12. Acute abdomen syndrome. Seminar.***

Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of the abdominal cavity.

Peritonitis. Diagnosis and differential diagnosis of peritonitis. Laboratory research methods. Etiology and pathogenesis of peritonitis. Classification of peritonitis. Stages of peritonitis. Prediction of the severity of acute peritonitis. Basic principles of treatment of peritonitis.

*Manual training simulator:* Basic laparoscopic skills and cholecystectomy

***Topic 13. Local and widespread purulent-inflammatory processes of the abdominal cavity and peritoneum. Etiology, pathogenesis, clinic, diagnosis, treatment.***

Acute appendicitis, clinic, diagnosis, treatment. Perforated ulcer, acute pancreatitis, acute cholecystitis - differential diagnosis, clinic, treatment.

***Topic 14. Mechanical jaundice.*** Causes. Differential diagnostic tactics. Modern approaches to treatment. Hepatic insufficiency in surgical diseases, methods of prevention and treatment. Mechanical jaundice as a complication of gallstone disease. Tumors of the head of the pancreas, Vater's nipple, intraductal tumors as a cause of mechanical jaundice. Differential doctor, clinic, treatment.

***Topic 15. Bleeding from the digestive tract. Seminar.***

Causes, diagnosis and differential diagnosis, treatment tactics. Bleeding of ulcerative origin - clinic, diagnosis, treatment. Portal hypertension syndrome complicated by bleeding. Mallory-Weiss syndrome. Hernia of the esophageal orifice of the diaphragm, complicated by bleeding. Tumors of the digestive tract with decay and bleeding - clinic, diagnosis, differential diagnosis, treatment tactics.

*Practical simulation training:* basic skills of endoscopy and hemostasis.

***Topic 16. Traumas of life.***

Symptoms of damage to the abdominal cavity and retroperitoneal space. Instrumental diagnostic methods. Therapeutic and diagnostic tactics.

Closed abdominal trauma - a diagnostic algorithm. Clinical picture of damage to the liver, spleen, rupture of hollow organs - stomach, intestines, bladder, kidneys. Penetrating wounds - clinical picture, differential diagnosis. Therapeutic tactics.

***Topic 17. Features of surgical diseases in pregnant women.***

Diagnosis and differential diagnosis of acute diseases of the abdominal cavity. Features of examination of pregnant women. Surgical tactics. Features of pain syndrome. Change in the location of pain. Risk of surgery depending on the duration of pregnancy. Anesthesiological support in surgical patients during pregnancy.

***Topic 18. The course of acute diseases in the elderly.***

Age-related changes in the body. Features of the course in patients with diabetes mellitus, cardiovascular pathology, renal failure. Diagnosis and differential diagnosis of acute surgical diseases in the elderly. Features of the clinical picture, examination of patients. Surgical tactics.

***Topic 19. Surgical complications in patients with infectious pathology.***

Differential diagnosis between acute surgical and infectious diseases. Pathogenesis of typhoid fever. Local changes in the intestine. Features of the clinical picture of perforated ulcers of the small intestine. Bleeding into the lumen of the digestive tract in infectious diseases. Differential diagnosis of mechanical and parenchymal jaundice. Treatment of acute liver failure.

***Topic 20. Modern methods of diagnosis and treatment of diseases of the cardiovascular and respiratory systems.***

Special research methods echocardiography, ultrasound scanning, heart sounding, film cardiography, coronary angiography. Diagnostic methods of examination of the chest - laryngoscopy, bronchoscopy, bronchography, biopsy, thoracentesis. Treatment of congenital heart disease. Coronary artery bypass grafting. The value of the artificial circulation for heart surgery.

***Topic 21. Chest pain syndrome, respiratory and heart failure in the diagnosis and differential diagnosis of diseases of the thoracic cavity.***

Etiology: spontaneous pneumothorax, pulmonary embolism, bronchial foreign body, mediastinitis, lung abscess, bronchiectasis, pleural empyema, pulmonary gangrene, pyopneumothorax, esophageal injury, chest injury. Differential diagnosis. Principles of conservative therapy and surgical treatment.

***Topic 22. Surgical pathology of the lungs and pleura. Principles of diagnosis and treatment.***

Purulent diseases of the lungs and pleura. Classification:

- a) Lung abscess is acute, purulent;
- b) Lung abscess is acute, gangrenous.
- c) Gangrene is common.
- d) Chronic lung abscess.

Etiology, pathogenesis, diagnosis. Conservative and surgical treatment. Prevention. Bronchiectasis - classification, pathoanatomy, diagnosis, treatment.

Pleural empyema - etiology, pathogenesis, clinical picture, diagnosis. Technique of pleural puncture. Prevention of pleural empyema.

***Topic 23. Surgical pathology of the lungs and pleura. Principles of diagnosis and treatment.***

Tumors of the lungs and interstitium. Benign tumors - classification. Tumors that are rare (fibroids, angiomas, teratomas, neurinomas, leiomyomas). Clinical and instrumental diagnosis. Differential diagnosis. Treatment.

Lung cancer: Classification by TNM system. Pathanatomy. Histological structure. Clinical picture. Diagnosis, differential diagnosis. Treatment - surgical, radiation. Bronchial recanalization - indications for its implementation.

***Topic 24. Damage to the thoracic cavity.***

Diagnostic program for heart damage. Triad of heart injury symptoms. The only clinical-diagnostic and medical-surgical program for heart injuries.

Determination of penetrating and non-penetrating heart damage. Classification of heart injuries. Pathogenesis.

Diagnosis and differential diagnosis of penetrating and non-penetrating heart injuries. Physician's tactics in providing emergency care. Therapeutic tactics.



**Topic 25. Damage to the thoracic cavity.**

Clinic and diagnosis of pneumothorax, hemothorax and chylothorax. Therapeutic approaches. Determination of open and closed chest injuries. Pathogenesis of complications. Risk factors for injuries. Classification of damages. Pneumothorax - types, clinical picture, diagnosis, treatment tactics. Hemothorax. Reasons. Clinic, diagnosis, differential diagnosis. Treatment.

**Topic 26. Aortic arch syndrome. Clinic, diagnosis, differential diagnosis, treatment approaches.**

Thoracic aortic aneurysms. Etiology, pathogenesis, pathological anatomy. Clinic and diagnosis. Complication. Clinical picture. Diagnosis. Differential diagnosis. Treatment. Occlusive lesions of the branches of the aortic arch. Etiology and pathogenesis. Clinical picture. Diagnosis. Therapeutic tactics.

**Topic 27. Syndrome of limb ischemia. Causing diseases. Conservative and surgical treatment of lower extremity occlusion.**

Obliterating atherosclerosis of the arteries of the lower extremities. Classification. Etiopathogenesis. Clinical picture. Diagnosis and differential diagnosis. Conservative and operative treatment.

Obliterating thromboangiitis. Reasons. Pathogenesis of the disease. Clinical picture. Diagnostic program. Conservative and operative treatment. Prevention.

**Topic 28. Assessment of pain syndrome in the extremities in the diagnosis and differential diagnosis of modern diseases, lesions of the nervous system and pathology of the musculoskeletal system.**

Features of pain in diabetic foot. Night pain in obliterating diseases of the vessels of the lower extremities. "Showcase pain". Determination of pulsation in the distal arteries of the lower extremities.

**Topic 29. Problems of thrombosis and embolism.**

Causes. Ways of prevention, diagnosis and differential diagnosis, treatment tactics. Modern possibilities of conservative treatment. Indications for surgical treatment and its main methods.

Acute arterial thrombosis, arterial embolism, etiology, pathogenesis. Degrees of acute arterial ischemia. Clinical picture. Diagnosis. Differential diagnosis. Conservative treatment. Surgical treatment of acute arterial obstruction. Modern endovascular interventions.

**Diseases of the veins.**

Syndrome of the superior vena cava. Lower vena cava syndrome. Reasons. Diagnosis. Differential diagnosis. Therapeutic tactics.

Etiology, pathogenesis of inferior and superior vena cava syndrome. Clinical signs. Diagnostic program. Differential diagnosis. Therapeutic tactics.

**3.3. Approximate structure of the program "Surgical diseases".**

Topic	Lectures	Practical training	Seminars	CPC	Individual CPC
<b>General issues of surgery</b>					
1. History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery.		2		2	

2. New technologies in surgery. Modern methods of diagnosis and treatment		4		4	
3. Syndrome of systemic inflammatory response in surgical patients. Pathogenesis, significance in various diseases and injuries. Therapeutic tactics.		4		4	
4. Shock in surgical patients. Causes, diagnosis, treatment tactics.		4		4	
5. Critical conditions in surgical patients: acute respiratory distress syndrome, abdominal syndrome, collapse		4		4	
6. Purulent diseases of the skin and soft tissues. Diagnosis, differential diagnosis. Methods of conservative and surgical treatment.		3		4	Writing an abstract "treatment of purulent diseases of the skin and soft tissues." 4 h
7. Purulent diseases of the hands and fingers. Methods of conservative surgical treatment		3		2	
8. Rules of antibiotic therapy in the prevention and treatment of surgical infection		2		2	
<b>Clinical manifestations of surgical diseases</b>					
9. Abdominal pain, assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity.		2		4	
10. Syndrome of acute intestinal obstruction. Etiology, pathogenesis. Diagnosis. Therapeutic tactics.		6		4	
11. Syndrome of dysphagia, vomiting and violation of the act of defecation. importance in diagnosis and differential diagnosis. Medical tactics.		6		4	
12. Acute abdomen syndrome. Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of the abdominal cavity.		6		4	Solving situational problems 2 h.
13. Local and widespread purulent-inflammatory processes of the abdominal cavity and abdomen. Etiology, pathogenesis, clinic, diagnosis and treatment.		6		4	
14. Mechanical jaundice. Causes. Differential-diagnostic tactics. Modern approaches to treatment. Hepatic insufficiency in surgical diseases, methods of prevention and treatment.		6		4	Solving the tasks of test control "Step-2" - 3 hours

15. Bleeding from the digestive tract. Causes, diagnosis and differential diagnosis, treatment tactics.		6		4	Acquisition of practical skills to determine the blood type of the patient 2 h
16. Injuries of life. Symptoms of damage to the abdominal cavity and peritoneal space. Instrumental diagnostic methods. Therapeutic and diagnostic tactics		6		4	Execution of primary surgical treatment on models of 4 h
17. Features of the course of surgical disease in pregnant women. Diagnosis and differential diagnosis of acute abdominal diseases. Features of the survey. Surgical tactics. Prevention of premature birth.		6		2	
18. The course of acute diseases in the elderly.		4		2	
19. Surgical diseases in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases.		4		4	
20. Modern methods of diagnosis and treatment of diseases of the cardiovascular and respiratory systems.		6		4	
21. Syndrome of chest pain, respiratory and heart failure in the diagnosis and differential diagnosis of diseases of the thoracic cavity		6		4	
22. Surgical pathology of the lungs and pleura. Purulent diseases of the lungs and pleura.		6		4	
23. Oncological pathology of the lungs and pleura. Tumors of the lungs and interstitium.		6		4	
24. Damage to the thoracic cavity. Diagnostic program for heart damage. Triad of heart injury symptoms. The only clinical-diagnostic and medical-surgical program for heart injuries.		6		4	Solving test problems "Step-2" - 3 hours
25. Damage to the thoracic cavity. Clinic and diagnosis of pneumothorax, hemothorax and chylothorax. Therapeutic approaches.		6		4	Mastering the practical skill "Transport immobilization" 4 h
26. Aortic arch syndrome. Clinic, differential diagnosis, treatment approaches.		6		4	
27. Syndrome of ischemia of the extremities. Causing diseases. Conservative and surgical treatment of occlusions of the lower extremities		6		4	Solving situational problems 2h

28. Evaluation of the pain syndrome in the extremities in the diagnosis and differential diagnosis of vascular diseases, lesions of the nervous system and pathology of the musculoskeletal system.		4		4	
29. Problems of thrombosis and embolism. Causes, ways of prevention, diagnosis and differential diagnosis, treatment tactics. Modern possibilities of conservative treatment. Indications for surgical treatment and its main methods. Diseases of the veins. Syndrome of the superior vena cava.		4		4	
30. Exam					
<b>Total hours - 270</b>	<b>-</b>	<b>140</b>		<b>106</b>	<b>24</b>

Classroom work - 52%, VTS - 48%

### 3.4. Thematic plan of practical classes

№ p / p	TOPIC	Number of hours
1.	History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery.	2
2.	New technologies in surgery. Modern methods of diagnosis and treatment.	4
3.	Systemic inflammatory response syndrome in surgical patients. Pathogenesis, significance in various diseases and injuries. Therapeutic tactics.	4
4.	Shock in surgical patients. Causes, diagnosis, treatment tactics.	4
5.	Critical conditions in surgical patients: acute respiratory distress syndrome, abdominal syndrome, collapse.	4
6.	Purulent diseases of the skin and soft tissues. Diagnosis, differential diagnosis. Methods of conservative and surgical treatment.	3
7.	Purulent diseases of the hands and fingers. Methods of conservative surgical treatment	3
8.	Rules of antibiotic therapy in the prevention and treatment of surgical infection.	2

9.	Abdominal pain, assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity.	2
10.	Acute intestinal obstruction syndrome. Etiology, pathogenesis. Diagnosis. Therapeutic tactics.	6
11.	Syndrome of dysphagia, vomiting and violation of the act of defecation. importance in diagnosis and differential diagnosis. Medical tactics.	6
12.	Acute abdomen syndrome. Diagnosis, differential diagnosis and treatment tactics. Differential diagnosis of acute diseases of the abdominal cavity.	6
13.	Local and widespread purulent-inflammatory processes of the abdominal cavity and abdomen. Etiology, pathogenesis, clinic, diagnosis and treatment.	6
14.	Mechanical jaundice. Causes. Differential-diagnostic tactics. Modern approaches to treatment. Hepatic insufficiency in surgical diseases, methods of prevention and treatment.	6
15.	Bleeding from the digestive tract. Causes, diagnosis and differential diagnosis, treatment tactics.	6
16.	Traumas of life. Symptoms of damage to the abdominal cavity and peritoneal space. Instrumental diagnostic methods. Therapeutic and diagnostic tactics.	6
17.	Features of the course of surgical disease in pregnant women. Diagnosis and differential diagnosis of acute abdominal diseases. Features of the survey. Surgical tactics. Prevention of premature birth.	6
18.	The course of acute diseases in the elderly.	4
19.	Surgical diseases in patients with infectious pathology. Differential diagnosis between acute surgical and infectious diseases.	4
20.	Modern methods of diagnosis and treatment of diseases of the cardiovascular and respiratory systems.	6

21.	Chest pain syndrome, respiratory and heart failure in the diagnosis and differential diagnosis of diseases of the thoracic cavity.	6
22.	Surgical pathology of the lungs and pleura. Purulent diseases of the lungs and pleura.	6
23.	Oncological pathology of the lungs and pleura. Tumors of the lungs and interstitium.	6
24.	Damage to the thoracic cavity. Diagnostic program for heart damage. Triad of heart injury symptoms. The only clinical-diagnostic and medical-surgical program for heart injuries.	6
25.	Damage to the thoracic cavity. Clinic and diagnosis of pneumothorax, hemothorax and chylothorax. Therapeutic approaches.	6
26.	Aortic arch syndrome. Clinic, differential diagnosis, treatment approaches.	6
27.	Limb ischemia syndrome. Causing diseases. Conservative and surgical treatment of occlusions of the lower extremities.	6
28.	Assessment of pain syndrome in the extremities in the diagnosis and differential diagnosis of vascular diseases, lesions of the nervous system and pathology of the musculoskeletal system.	4
29.	Problems of thrombosis and embolism. Causes, ways of prevention, diagnosis and differential diagnosis, treatment tactics. Modern possibilities of conservative treatment. Indications for surgical treatment and its main methods. Diseases of the veins. Syndrome of the superior vena cava.	4
	Assessment of individual independent work of students.	
	Total	140

### 3.5. Types of independent work of students (VTS) and their control

№ p / p	TOPIC	Number hours	View control
1.	<b>Preparation for practical classes - theoretical training and development of practical skills. Solving the tasks of test control "Step-2" and situational problems.</b>	<b>68</b>	Current control in practical classes
2.	<b>Independent work of students</b>	<b>38</b>	Protocols of mastering topics. Exam
	1. Differential diagnosis of gastrointestinal bleeding.	4	
	2. Functional, instrumental research methods in diseases of the stomach and intestines.	4	
	3. Functional, instrumental research methods in diseases of the liver, extrahepatic bile ducts, pancreas.	4	
	4. Transplantology.	4	
	5. Differential diagnosis and treatment of thyroid diseases.	2	
	6. Differential diagnosis and treatment of diseases of the rectum and pararectal space.	4	
	7. Differential diagnosis and treatment of mediastinal diseases	4	
	8. Differential diagnosis and treatment of acute thrombosis of mesenteric vessels.	4	
	9. Differential diagnosis and treatment of intestinal fistula	2	
	10. Anticoagulants and thrombolytic therapy in acute thrombosis	2	
	11. Differential diagnosis, prevention and treatment of acute gastrointestinal ulcers	4	
3.	<b>Individual independent work of students 24</b>	<b>24</b>	Abstract design of the topic
	Writing an abstract "Treatment of purulent diseases of the skin and soft tissues."	4	
	Mastering the practical skill "Finger examination of the rectum" on models.	2	
	Writing an abstract "Treatment of acute intestinal obstruction."	4	
	Mastering the technique of laparocentesis.	4	
	Acquisition of practical skills "Determination of blood groups and temporary cessation of bleeding."	2	
	Performing primary surgical treatment on the model	4	
	Mastering the practical skill "Transport immobilization"	4	
	<b>Total</b>	<b>130</b>	

## **4. LIST OF QUESTIONS IN THE DISCIPLINE "SURGICAL DISEASES" TO PREPARE STUDENTS FOR THE EXAM.**

### **4.1 General issues of surgery.**

1. History of surgery in Ukraine. Organization of surgical care in Ukraine. Ethics and deontology in surgery.
  1. Development of surgery on the territory of Ukraine in ancient times.
  2. Development of surgery in Ukraine in the 20th century.
  3. Contribution to the development of surgical science in Ukraine by academicians MM Amosov and OO Shalimov.
2. New technologies in surgery. Modern methods of diagnosis and treatment.
  1. Videoendoscopic operations in surgery.
  2. Laparoscopic methods of operations on the liver, esophagus, peptic ulcers.
  3. Videothoracoscopic surgical interventions.
  4. Endoscopic retrograde cholangiopancreatography.
3. Systemic inflammatory response syndrome in surgical patients. 1. Pathogenesis.
  2. Significance in various diseases and injuries.
  3. Therapeutic tactics.
4. Shock in surgical patients.
  1. Reasons.
  2. Stages of shock.
  3. Types of shock - anaphylactic, hemorrhagic, traumatic, septic, cardiogenic shock.
  4. Diagnostic algorithm.
  5. Treatment of various clinical types of shock.
  6. Providing emergency care in traumatic shock during hostilities. 7. Transport immobilization in military conditions as a means of shock prevention. 8. Temporary cessation of bleeding as a means of preventing hemorrhagic shock during the war.
5. Critical conditions in surgical patients.
  1. Acute respiratory distress syndrome.
  2. Abdominal syndrome, collapse.
  3. Clinical picture, diagnosis, treatment of acute respiratory distress syndrome.
  4. Compartment-syndrome - causes, diagnosis, prevention.
  5. Collapse - causes, clinical picture, differential diagnosis, urgent help.
6. Purulent diseases of the skin and soft tissues.
  1. Classification of purulent soft tissue infection
  2. Diagnosis, differential diagnosis.
  3. Methods of conservative and surgical treatment.
  4. Features of the clinic and treatment of inflammatory processes in patients with diabetes.
  5. Primary surgical treatment as a means of prevention of purulent complications during war.
7. Purulent diseases of the hands and fingers.
  1. Methods of conservative surgical treatment.
  2. Anatomy of the hand.
  3. Methods of examination of a patient with purulent diseases of the hand.
    1. Classification of purulent diseases of the hand.
    2. Clinic and diagnosis of superficial and deep phlegmon of the hand.
    3. Indications for conservative and surgical treatment of patients with panaritium.



4. Basic principles of functional treatment in the postoperative period.
8. Rules of carrying out antibiotic therapy at prevention and treatment of a surgical infection.
1. Classification of surgical infection.
2. Pathogens of surgical infection.
3. Local and general clinical manifestations of surgical infection depending on age, comorbidities and virulence of the microflora.
4. Acute purulent inflammatory processes of the skin and subcutaneous tissue.
5. Principles of conservative and operative treatment of acute purulent diseases.
6. Etiology, clinic and treatment of anaerobic infection.

## 4.2 Clinical manifestations of surgical diseases.

9. Abdominal pain, assessment of the features of the pain syndrome in the differential diagnosis of diseases of the abdominal cavity.
  1. Pseudoabdominal pain.
  2. Features of a pain syndrome at peritonitis.
  3. Features of pain at perforation of a hollow body.
  4. Features of pain syndrome in surgical pathology: in the upper abdomen (acute cholecystitis, acute pancreatitis, perforation of gastric ulcer and 12 items of the intestine).
  5. Features of local pain in acute appendicitis.
10. Syndrome of dysphagia, vomiting and violation of the act of defecation.
  1. Significance in diagnosis and differential diagnosis.
  2. Medical tactics.
  3. Differential diagnosis of dysphagia.
  4. Features of vomiting in acute pancreatitis, acute cholecystitis, perforation of the hollow organ, bleeding into the lumen of the digestive tract.
  5. Violation of the act of defecation in surgical diseases - constipation, diarrhea. Discoloration of feces with bleeding.
  6. Finger examination of the rectum
11. Acute intestinal obstruction syndrome.
  1. Classification of intestinal obstruction.
  2. Dynamic intestinal obstruction - etiology, clinical picture, diagnosis, differential diagnosis, treatment, prevention.
  3. Mechanical intestinal obstruction - etiology, pathogenesis, clinic, differential diagnosis of obstructive and strangulation intestinal obstruction.
  5. Preoperative preparation of patients.
  7. Choice of operation method depending on the type of obstruction.
12. Acute abdomen syndrome.
  1. Peritonitis.
  2. Diagnosis and differential diagnosis of peritonitis.
  3. Classification of peritonitis. Stages of peritonitis.
  4. Basic principles of peritonitis treatment.
13. Local and widespread purulent-inflammatory processes of the abdominal cavity and abdomen.
  1. Etiology, pathogenesis, clinic, diagnosis and treatment.
  2. Acute appendicitis, clinic, diagnosis, treatment.
  3. Perforated ulcer, acute pancreatitis, acute cholecystitis - differential diagnosis, clinic, treatment.
14. Mechanical jaundice.
  1. Differential diagnostic tactics.
  2. Liver failure in surgical diseases, methods prevention and treatment.
  3. Mechanical jaundice as a complication of gallstone disease.

4. Tumors of the head of the pancreas, Vater's nipple, intraductal tumors as a cause of mechanical jaundice.
15. Bleeding from the digestive tract.
  1. Causes, diagnosis and differential diagnosis, medical tactics.
  2. Bleeding of ulcer origin - clinic, diagnosis, treatment.
  3. Mallory-Weiss syndrome.
  4. Tumors of the digestive tract with decay and bleeding - clinic, diagnosis, differential diagnosis, treatment tactics.
16. Traumas of life.
  1. Symptoms of damage to the abdominal organs and peritoneal space.
  2. Instrumental methods of diagnosis.
  3. Closed abdominal trauma - diagnostic algorithm.
  4. Therapeutic tactics.
17. Features of the course of surgical disease in pregnant women.
  1. Features of examination of pregnant women.
  2. Surgical tactics.
  3. Features of a pain syndrome.
  4. Risk of surgery depending on the duration of pregnancy.
  5. Anesthesiological support in surgical patients during pregnancy.
18. The course of acute diseases in the elderly.
  1. Age-related changes in the body.
  2. Features of the course in patients with diabetes mellitus, cardiovascular pathology, renal failure.
  3. Diagnosis and differential diagnosis of acute surgical diseases in the elderly.
  4. Features of the clinical picture, examination of patients. Surgical tactics.
19. Surgical diseases in patients with infectious pathology.
  1. Differential diagnosis between acute surgical and infectious diseases.
  2. Pathogenesis of typhoid fever.
  3. Features of the clinical picture of perforated ulcers of the small intestine.
  4. Bleeding into the lumen of the digestive tract in infectious diseases.
20. Modern methods of diagnosis and treatment of diseases of the cardiovascular and respiratory systems.
  1. Special research methods echocardiography, ultrasound scanning, heart sounding, film cardiography, coronary angiography.
  2. Diagnostic methods of examination of the chest - laryngoscopy, bronchoscopy, bronchography, biopsy, thoracentesis.
  3. Treatment of congenital heart defects.
  4. Aorto-coronary shunting.
  5. The value of the artificial circulation for heart surgery.
21. Chest pain syndrome, respiratory and heart failure in the diagnosis and differential diagnosis of diseases of the thoracic cavity.
  1. Etiology: spontaneous pneumothorax, pulmonary embolism, bronchial foreign body, mediastinitis, lung abscess, bronchiectasis, pleural empyema, lung gangrene, pyopneumothorax, esophageal injury, chest trauma.
  2. Differential diagnosis.
  3. Principles of conservative therapy and surgical treatment.
22. Surgical pathology of the lungs and pleura.
  1. Purulent diseases of the lungs and pleura. Classification:
    - a) Lung abscess is acute, purulent;
    - b) Lung abscess is acute, gangrenous.

- c) Gangrene is common.
  - d) Chronic lung abscess.
- 2. Etiology, pathogenesis, diagnosis.
- 3. Conservative and surgical treatment. Prevention.
- 4. Technique of pleural puncture.
- 23. Oncological pathology of the lungs and pleura.
  - 1. Benign tumors - classification.
  - 2. Lung cancer: Classification according to the TNM system.
  - 3. Clinical picture. Diagnosis, differential diagnosis.
  - 4. Treatment - surgical, radiation.
- 24. Damage to the thoracic cavity.
  - 1. Triad of symptoms of heart injury.
  - 2. The only clinical-diagnostic and medical-surgical program at heart injuries.
  - 3. Classification of heart injuries. Pathogenesis.
  - 4. Tactics of the doctor in providing emergency care.
- 25. Damage to the thoracic cavity.
  - 1. Clinic and diagnosis of pneumothorax, hemothorax and chylothorax.
  - 2. Therapeutic approaches.
  - 2. Determination of open and closed chest injuries.
  - 3. Pneumothorax - types, clinical picture, diagnosis, treatment tactics.
  - 4. Clinic, diagnostics, differential diagnostics.
  - 5. Treatment.
- 26. Aortic arch syndrome.
  - 1. Clinic, differential diagnosis, treatment approaches.
  - 2. Thoracic aortic aneurysms.
  - 3. Etiology, pathogenesis, pathological anatomy. Clinic and diagnosis.
  - 4. Complications. Clinical picture. Diagnosis.
  - 5. Differential diagnosis. Treatment.
  - 6. Occlusive lesions of the branches of the aortic arch.
  - 7. Etiology and pathogenesis. Clinical picture. Diagnosis.
  - 8. Therapeutic tactics.
- 27. Limb ischemia syndrome.
  - 1. Obliterating atherosclerosis of the arteries of the lower extremities.
  - 2. Diagnosis and differential diagnosis.
  - 3. Conservative and operative treatment.
  - 4. Obliterating thromboangiitis.
  - 5. Conservative and operative treatment.
- 28. Assessment of pain syndrome in the extremities in the diagnosis and differential diagnosis of vascular diseases, lesions of the nervous system and pathology of the musculoskeletal system.
  - 1. Features of a pain syndrome at a diabetic foot.
  - 2. Night pain in obliterating diseases of the vessels of the lower extremities. "Showcase pain".
  - 3. Determination of pulsation in the distal arteries of the lower extremities
- 29. Problems of thrombosis and embolism.
  - 1. Causes, ways of prevention, diagnosis and differential diagnosis, treatment tactics.
  - 2. Indications for surgical treatment and its main methods.
  - 3. Acute arterial thrombosis, arterial embolism, etiology, pathogenesis.
  - 4. Diagnosis. Differential diagnosis.
  - 5. Surgical treatment of acute arterial obstruction.

Diseases of the veins.

1. Syndrome of the superior vena cava.
2. Syndrome of the inferior vena cava.
3. Etiology, pathogenesis of inferior and superior vena cava syndrome.
4. Differential diagnosis. Therapeutic tactics.

## **5. LIST OF PRACTICAL SKILLS FOR THE FINAL CONTROL OF THE PROGRAM "SURGICAL DISEASES"**

- Determination of blood groups and temporary cessation of external bleeding.
- Primary surgical treatment.
- Transport immobilization.
- Pleural puncture.
- Technique of laparocentesis.
- Catheterization of the bladder.
- Finger examination of the rectum.

## **6. FORMS OF CONTROL AND EVALUATION CRITERIA FOR STUDENTS.**

### **6.1 Forms of control.**

Evaluation of the success of the study of each topic of the discipline is performed on the traditional 4-point scale. At least 50% of students should be interviewed in a practical lesson, and at least 30% in a seminar.

Only those students who do not have academic debts are admitted to the exam and their average score for the current academic activity in the discipline is at least 3.00.

The exam is held at the end of the cycle. It also represents the arithmetic mean of 4 component estimates for:

1. Curation of patients
2. Practical experience
3. Solving situational problems
4. Solving test tasks STEP-2

Each of these types of work is evaluated on a 4-point system. The solution of test tasks Step-2 is evaluated depending on the percentage of correctly solved tasks as follows:

Correct answers:

91% -100% - "5" - excellent

81% -90% - "4" - good

71% -80% - "3" - satisfactory

70% or less - unsatisfactory

Scores for answers to all points are added, then divided by 4; obtained an average grade and is an examination.

### **6.2 Evaluation criteria.**

The university uses various forms of control of classes in a particular discipline (oral, written, combined, testing, practical skills, etc.). The results of academic success of students are presented in the form of assessment on a national scale, 200-point and ECTS scale and have standardized generalized criteria for assessing knowledge:

*national scale:*

- the grade "excellent" is given to the student who systematically worked during a semester, showed during examination various and deep knowledge of a program material, is able to successfully

carry out tasks which are provided by the program, has mastered the maintenance of the basic and additional literature, has understood interrelation of separate sections of discipline. importance for the future profession, showed creative abilities in understanding and using educational material, showed the ability to independently update and replenish knowledge; level of competence - high (creative);

- a grade of "good" is given to a student who has shown full knowledge of the curriculum, successfully completes the tasks provided by the program, mastered the basic literature recommended by the program, showed a sufficient level of knowledge of the discipline and is able to independently update and update during further study and professional activity; level of competence - sufficient (constructive-variable);

- the grade "satisfactory" is given to the student who has shown knowledge of the basic educational program material in the volume necessary for the further training and the subsequent work on a profession, copes with performance of the tasks provided by the program, has made separate mistakes in answers on examination and at performance of examination tasks, but has the necessary knowledge to overcome mistakes under the guidance of a researcher; level of competence - average (reproductive);

- the grade "unsatisfactory" is given to the student who did not show sufficient knowledge of the basic educational program material, made fundamental mistakes in performance of the tasks provided by the program, cannot use the knowledge at the further training without the teacher's help, failed to master skills of independent work; the level of competence is low (receptive-productive).

*Multi-point scale* characterizes the actual success of each student in mastering the discipline. Conversion of the traditional grade from the discipline to 200-point is performed by the information and computer center of the university program "Contingent" by the formula:

**average grade (current / total discipline) x 40**

national grade	points
«5»	185-200
«4»	151-184
«3»	120-150

## 7. SOURCES OF INFORMATION

### 7.1 Basic literature

1. Clinical surgery (edited by L.Ya. Kovalchuk, V.F. Saenko, G.V. Klymova - Ternopil. Ukrmedknyha. 2002, 536 p.
2. Operative surgery (edited by I. Littman). Budapest. Iz-vo AN. Hungary, 1981, 1176 p.
3. Surgical diseases. Textbook / M.I. Cousin, OS Starch, etc., ed. WE. Kuzina, M. Medicina, 2002, 784 p.
4. Surgical diseases. Textbook. (Edited by PG Kondratenko) Kharkiv, 2006, 800 p.
5. Surgery. A guide for doctors and students. Translation from English. (Edited by VE Jarrel, RSCarabasi) M. GEOTAR, 1997, 1069 p.
6. Surgery. Editor prof VV Grubnik. Odessa State Medical University. 2010. p.450
7. Хирургия: учебник: в 2 т. / С. А. Бойко, А. А. Болдижар, П. А. Болдижар [и др.] ; под ред.: П. Г. Кондратенко, В. И. Русина. Т. 1, 2017. - 516 с.
8. Загальна хірургія: Підручник для мед. ВНЗ IV р.а. — 3-тє вид., випр. Затверджено МОН / Хіміч С.Д., Желіба М.Д., Герич І.Д. та ін.; За ред. С.Д. Хіміча. — К., 2018. — 608 с., тв. пал., (ст. 5 пр.).

9. Невідкладні стани в хірургії: Навч. посіб. для мед. ВНЗ I—III р.а. Затверджено МОЗ / К.М. Бобак, А.І. Бобак, В.В. Киретів та ін.; За ред. Л.М. Ковальчука. — К., 2017. — 560 с., тв. пал., (ст. 10 пр.).
10. Ендоскопічна хірургія: Навч. посіб. для студ. мед. ЗВО, лікарів-хірургів, онкологів, ендоскопістів. Рекомендовано вченою радою Одеського НМУ / За ред. В.М. Запорожана, В.В. Грубніка. — К., 2019. — 592 с., тв. пал., (ст. 7 пр.).

## 7.2 Additional literature

1. Kovalchuk L.Ya., Dzyubanovsky I.Ya. Atlas of surgical interventions on the organs of the gastrointestinal tract and anterior abdominal wall. Ternopil, Ukrmedknyha, 2004, 206 p.
2. Krestin GP, Choik PL Acute abdomen: visual methods of diagnosis. М. Медицина. 2000, 360 p.
3. Lectures on hospital surgery (ed. Prof. VG Mishalova), Kyiv, Naukova Dumka, 2003, 407 p.
4. "Step-2" Collection of tests to prepare for the test exam in professionally-oriented disciplines. For order. Corresponding member AMS of Ukraine VF Moskalenko, Kyiv, 2005, 938.

## 7.3 Information resources

1. A new method of non-tension alloplasty of giant hernias of the esophageal orifice of the diaphragm. Malinovsky, AV; Korchevoy, DV; Badion, S. Yu .; Malinowski, AV; Korchovy, DV; Badion, S. Yu .; Malynovskyi, AV; Korchovy, DV; Badion, SY URI: [https://repo.odmu.edu.ua:443 / xmlui / handle / 123456789/7909](https://repo.odmu.edu.ua:443/xmlui/handle/123456789/7909) Date: 2019
2. The first experience of using three-dimensional imaging in laparoscopic genealogy. Malinovsky, AV; Badion, S. Yu .; Gorbachuk, II; Malinowski, AV; Badion, S. Yu .; Gorbachuk, II; Malinovsky, AV; Badion, SY; Horbachuk, II URI: <https://repo.odmu.edu.ua:443/xmlui/handle/123456789/6199> Date: 2019
3. Laparoscopic alloplasty of the esophageal orifice of the diaphragm in a new way of internal strengthening of the posterior crurophry: the first results Malinowski, AV; Badion, S. Yu .; Gorbachuk, II; Malinovsky, AV; Badion, SY; Horbachuk, II; Malinovsky, AV; Badion, S. Yu .; Gorbachuk, II URI: <https://repo.odmu.edu.ua:443/xmlui/handle/123456789/6714> Date: 2019
4. A new method of laparoscopic alloplasty of hernia of the esophageal orifice of the diaphragm. Malinovsky, AV; Badion, S. Yu .; Gorbachuk, II; Malinowski, AV; Badion, S. Yu .; Gorbachuk, II; Malinovsky, AV; Badion, SY; Horbachuk, II URI: <https://repo.odmu.edu.ua:443/xmlui/handle/123456789/5928> Date: 2019
5. Relationship between subjective and objective data in achalasia patients after laparoscopic Heller-Dor procedure. Grubnik, VV; Malinovskiy, AV; Grubnik, AV URI: <https://repo.odmu.edu.ua:443/xmlui/handle/123456789/6214> Date: 2006
6. Advantages of modern simulation and multimedia technologies in teaching surgical diseases and endoscopic surgery to students and cadets of postgraduate education. Malinowski, AV; Stavnichy, AS; Mayorenko, MN; Malinovskiy, AV; Stavnichy, AS; Mayorenko, MN URI: <https://repo.odmu.edu.ua:80/xmlui/handle/123456789/4649> Date: 2018
7. Website of the All-Ukrainian Association of Endoscopists - <http://endoscopy.com.ua/>