



## Syllabus of the discipline General Surgery

<b>1. General information</b>	
<b>Name of the faculty</b>	<b>medical</b>
<b>Educational program (industry, specialty, level of higher education, form of education)</b>	<b>Area of knowledge 22 "Health"</b> <b>Specialty 222 "Medicine"</b> <b>Educational qualification "Master of Medicine"</b> <b>Professional qualification "Doctor"</b> <b>Form of study - full-time</b>
<b>Academic year</b>	<b>third</b>
<b>Name of discipline, code (e-mail address on the website of LNMU named after Danylo Halytsky)</b>	<b>General surgery</b> <b>OK24, professional training</b>
<b>Department (name, address, phone, e-mail)</b>	<b>Department of General Surgery</b> <b>Lviv, I. Mykolaychuk street , 9</b> <b>tel .: 258-74-86, fax: 291-72-31</b> <b>Kaf_gensurgery@meduniv.lviv.ua</b>
<b>Head of the department (contact e-mail)</b>	<b>Professor Andrushchenko Victor Petrovich</b> <b>avp.victor@gmail.com</b>
<b>Year of study (year in which the study of the discipline)</b>	<b>3rd year, medical faculty</b>
<b>Semester (semester in which the study of the discipline is implemented)</b>	<b>V-VI semester</b>
<b>Type of course / module (compulsory / optional)</b>	<b>Professional training</b>
<b>Teachers (names, surnames, scientific degrees and titles of teachers who teach the discipline, contact e-mail)</b>	<b>Andryushchenko Viktor Petrovich, Doctor of Medical Sciences, Professor, avp.victor @ gmail.com,</b> <b>Kushta Yuriy Fedorovich, Candidate of Medical Sciences, Associate Professor, urijkushta @ gmail.com,</b> <b>Maglyovany Vitaliy Anatoliyovych, Candidate of Medical Sciences, Associate Professor, mahlovitaliy@gmail.com,</b> <b>Gerich Gnat Ihorovych, Assistant, hnatok@gmail.com,</b> <b>Matviychuk Oleh Bogdanovych, Doctor of Medical Sciences, Associate Professor, oleh.matviychuk@yahoo.com,</b> <b>Paranyak Mykola Romanovych, Candidate of Medical Sciences, Assistant, mykolamd@gmail.com</b>
<b>Erasmus yes / no (availability of the discipline for students within the Erasmus + program)</b>	-
<b>Person responsible for the syllabus (person to be commented on the syllabus, contact e-mail)</b>	<b>Andryushchenko Viktor Petrovich, Doctor of Medical Sciences, Professor,</b>

	<b>avp.victor@gmail.com</b>
Number of ECTS credits	<b>6 (180 hours)</b>
Number of hours (lectures / practical classes / independent work of students)	<b>Lectures - 30, practical classes - 70, independent work - 80</b>
Language of instruction	<b>Ukrainian, English</b>
Information about consultations	<b>According to the established schedule</b>
Address, telephone and rules of operation of the clinical base, office) (if necessary)	<b>Department of General Surgery, Lviv National Medical University, Lviv, Municipal City Clinical Emergency Hospital, Mykolaychuka street, 9 Kaf_gensurgery@meduniv.lviv.ua</b>

## **2. Short annotation to the course**

General characteristics, brief description of the course, features, benefits

"General surgery" is a clinical discipline, during the study of which students acquire basic theoretical knowledge on the organization of surgical care, desmurgia, organization of sanitary and epidemiological regime in a surgical clinic, bleeding and its cessation, transfusiology, anesthesiology and resuscitation, various traumatic lesions. surgical infection, transplantology, oncology, examination of a surgical patient, care of patients, etc. Assimilation of theoretical material is accompanied by the acquisition of appropriate integrated, general and professional competencies. The subject of study of the discipline "General Surgery" are: measures for the organization of sanitary and epidemiological regime in the surgical clinic; dressing material and methods of its application; bleeding and ways of its temporary and final stop; transfusion of donor blood components, complications of blood transfusion and their prevention; basics of anesthesiology and resuscitation; clinic, diagnosis, first aid, principles of treatment for traumatic injuries; general issues of surgical infection, clinic, diagnosis, treatment, prevention of certain types of surgical infection; basics of transplantology, basics of clinical oncology; methodology of examination of a surgical patient.

## **3. The purpose and objectives of the course**

1. The purpose of the course - The purpose of teaching the discipline "General Surgery" is:

- mastering systematic knowledge on the organization of surgical care and prevention of the spread of nosocomial infection;
- formation of practical skills in the use of dressings;
- mastering the skills of caring for surgical patients;
- acquaintance with the principles of local and general anesthesia, mastering the algorithms for diagnosing terminal conditions, clinical death and conducting activities for basic life support;
- acquaintance with the basics of transfusiology and mastering the methods of transfusion of donor blood components and ensuring the prevention of blood transfusion complications;
- mastering the ability to diagnose various traumatic injuries and provide first aid, mastering the principles of treatment of traumatic injuries in the hospital;
- mastering general knowledge about surgical infection, the ability to diagnose surgical infectious diseases; mastering the principles and features of treatment of various surgical infectious processes and methods for their prevention;
- acquaintance with the basics of transplantation;
- mastering the knowledge of the basics of clinical oncology;
  - formation of practical skills in the examination of a surgical patient and registration of its results in the medical card of an inpatient.

2. Learning objectives - mastering the basic measures necessary for the organization of work in the surgical department and ensuring the prevention of the occurrence and spread of nosocomial infections; acquisition of practical skills in applying bandages using a variety of dressings acquisition of practical skills for first aid in conditions such as bleeding, closed soft tissue damage, bone fracture, dislocation, prolonged compression syndrome, wound, burn, frostbite acquisition of practical skills for the preparation and transfusion of blood components of the donor, the acquisition of knowledge of the basics of local and general anesthesia, to acquire the ability to choose the

method of analgesia depending on the patient's condition and existing surgical pathology.

3. Competences and learning outcomes, the formation of which provides the study of the discipline (general and special competencies):

general:

1. ability to abstract thinking, analysis and synthesis;
2. the ability to learn and master modern knowledge;
3. ability to apply knowledge in practical situations;
4. ability to plan and manage time;
5. knowledge and understanding of the subject area and understanding of professional activity;
6. skills of using information and communication technologies;
7. ability to adapt and act in a new situation;
8. ability to make informed decisions;
9. ability to work in a team;
10. interpersonal skills;
11. determination and persistence in terms of tasks and responsibilities;
12. desire to preserve the environment;
13. ability to act on the basis of ethical considerations

special (professional, subject):

1. history taking in a surgical patient;
2. conducting an objective examination of the surgical patient;
3. assessment of the severity of clinical manifestations of the disease;
4. drawing up a survey plan and evaluating their results;
5. differential diagnosis;
6. providing care for the seriously ill;
7. identify and assess acute medical conditions;
8. first aid.
- 9.

#### 4. Prerequisites for the course

The discipline "General Surgery" is based on the knowledge acquired by students during the study of such fundamental disciplines as anatomy, histology, physiology, pathological anatomy, pathological physiology, propaedeutics of internal medicine, pharmacology, and lays the foundations for clinical surgery, traumatology and orthopedics. , neurosurgery, obstetrics, gynecology, anesthesiology, resuscitation and other disciplines involving the use of surgical treatments.

#### 5. Program learning outcomes

##### List of learning outcomes

Learning outcome code	The content of the learning outcome	Reference to the competency matrix code
<i>The code is created when filling the syllabus (category: Zn-knowledge, Mind-ability, K-competence, AB - autonomy and responsibility)</i>	<i>Learning outcomes determine that the student must know, understand and be able to perform, after completing the discipline. Learning outcomes follow from the set learning goals. To enroll in the discipline, it is necessary to confirm the achievement of each learning outcome.</i>	Symbol of the Program Learning Outcome Code in the Higher Education Standard
ZH -1 -	Know the possible complaints and the sequence of collecting information about the disease in the patient	PR-1
U-1	Be able to consistently gather all the information about the disease from the	PR -2

	patient's words	
K-1	Ability to establish interpersonal relationships	PR-3
AB-1	Be responsible for the implementation of ethical and deontological norms	PR-4
ZH -2	Know the sequence of application of the method of objective examination of the patient	PR-5
U-2	Be able to perform all regulated methods of examination in the appropriate sequence and evaluate the results	PR-6
K-2	Ability to establish contact with the patient during an objective examination	PR-7
AB-2	Be responsible for the correctness and interpretation of the results obtained during the objective examination	PR-8
U-3	Have knowledge of the clinical course of the disease	PR-9
ZH-3	Be able to choose and apply the appropriate scale to assess the clinical course of the disease	PR-10
K-3	Use information and communication technologies in professional activities	PR-11
AB-3	Be responsible for the interpretation of the results obtained in assessing the clinical course of the disease	PR-12
U-4	Drawing up a survey plan and evaluating the results obtained	PR-13
ZH-4	Have specialized knowledge of methods of laboratory and instrumental research	PR-14
K-4	Be able to analyze the results of laboratory and instrumental research methods	PR-15
AB-4	Be responsible for the correctness and timeliness of relevant research and interpretation of their results	PR-16
U-5	Carrying out differential diagnostics	PR-16
ZH-5	Have knowledge of clinical manifestations of traumatic injuries, surgical infection and other urgent surgical conditions	PR-17
K-5	Be able to make a differential diagnosis between traumatic injuries, be able to distinguish between various infectious surgical diseases and stages of their development	PR-18
AB-5	It is reasonable to form and bring to the patient and specialists the conclusions of the results of differential diagnosis	PR-19
U-6	Providing care for the seriously ill	PR-20

ZH-6	To have knowledge about the organization of comfortable stay of the patient in a hospital and rules of maintenance of vital needs of an organism	PR-21
K-6	Have the skills to care for the patient in a hospital, be able to determine and assess the general condition of the patient, the basic parameters of his life	PR-22
AB-6	Effectively form a communication strategy in contact with the patient, enter information into the relevant documentation	PR-23
U-7	Detect and evaluate acute medical conditions	PR-24
ZH-7	Have knowledge of clinical manifestations and stages of development of acute medical conditions	PR-25
K-7	Be able to quickly detect and diagnose acute medical conditions, be able to organize an appropriate diagnostic program	PR-26
AB-7	Be responsible for the timely detection and assessment of the patient's immediate medical condition	PR-27
U-8	Providing basic life support and cardiopulmonary resuscitation in accordance with current European recommendations	PR-28
ZH-8	Have specialized knowledge about terminal conditions, their clinical manifestations	PR-29
K-8	Be able to quickly diagnose terminal condition, clinical death. Be able to carry out basic life support activities	PR-30
AB-8	To be responsible for timely detection of a terminal condition, for correctness of carrying out of actions for elementary support of life	PR-31
U-9	First aid	PR-32
3H-9	Have specialized knowledge about urgent human conditions; know the algorithms of first aid	PR-33
K-9	Be able to consistently and correctly perform first aid measures in accordance with the emergency	PR-34
AB-9	Be responsible for the correctness and consistency of first aid	PR-35
U-10	Pain treatment	PR-36
ZH-10	Have specialized knowledge about the pathogenesis of pain and pathological conditions that occur as a result of pain	PR-37

K-10	Be able to choose and apply the appropriate treatment or drug to prevent and reduce pain and its consequences	PR-38
AB-10	To be responsible for the timeliness and correctness of the use of appropriate measures and drugs to prevent and reduce the manifestations of pain	PR-40
U-11	Prescribing appropriate treatment	PR-41
ZH-11	Have specialized knowledge of algorithms and treatment regimens for traumatic injuries and surgical infection	PR-42
K-11	Be able to choose the necessary set of treatment measures depending on the pathological condition	PR-43
AB-11	To be responsible for the timeliness and correctness of the choice of treatment program for a patient with traumatic injury, surgical infection	PR-44
U-12	Carrying out medical manipulations and procedures	PR-45
ZH-12	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, catheterization of the bladder, lavage Stomach probe, enema, shaving the operating field	PR-46
K-12	Be able to perform a medical procedure or perform medical manipulation according to the algorithm	PR-47
AB-12	To be responsible for the quality of execution of this or that medical procedure or manipulation	PR-48
U-13	Transportation of the patient	PR-49
ZH-13	Have knowledge of the means and methods of transporting the patient	PR-50
K-13	Be able to assess the possibility of transporting the patient and choose the appropriate method	PR-51
AB-13	To be responsible for the correctness of the assessment of the possibility of transporting the patient and the choice of means of transportation	PR-52
U-14	Transfusion of donor blood components	PR-53

ZH-14	Have specialized knowledge of blood physiology. Know the algorithms for compatibility tests for blood transfusion of blood drugs	PR-54
K-14	Be able to perform compatibility tests before blood transfusion. Be able to perform the blood transfusion itself	PR-55
AB-14	To be responsible for the correctness of compatibility tests before blood transfusion, and the transfusion of the blood product	PR-56
U-15	Apply measures to prevent the occurrence and spread of nosocomial infection	PR-57
ZH-15	Have specialized knowledge on antiseptics, disinfection, organizational anti-epidemic measures, asepsis	PR-58
K-15	Be able to organize an appropriate sanitary-epidemic regime in the premises of the surgical department	PR-59
AB-15	Be responsible for compliance with the rules of sanitary and epidemiological regime	PR-60

#### **6. Format and scope of the course**

Course format (specify full-time or part-time)	Eye	
Kind of occupations	Number of hours	Number of groups
lectures	<b>30</b>	60 (domestic + foreign)
practical	<b>70</b>	60
seminars	-	-
independent	<b>80</b>	60

#### **7. Topics and content of the course**

Code type to borrow	Topic	Learning content	Learning outcome code	Teacher
L-1 (lecture-1)	Surgery as a science. A short essay on the history of surgery. Domestic and foreign surgical schools. Questions of professional ethics and deontology. Legal and legal aspects of the surgeon's activity.	Information-on lecture, visualization - tables, drawings, videos	ZH-1,UM-1-K-1,AB-1	<b>Doc. Kushta Yu.F. Doc. Mahlovanyj V.A., Doc. Matviychuk O.B.</b>

P-1 (practical lesson 1)	Desmurgia. Definition. Overlay rules and types of bandages. Typical bandages on the upper limb, head, neck, chest.	Written survey, tests, situational tasks, practical skills training	ZH-1,UM-1-K-1,AB-1	<b>Doc. Kushta YU.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-1 (independent work 1)	Topic 1. Desmurgia. Definition. Overlay rules and types of bandages. Typical bandages on the upper limb, head, neck, chest.	Тренинг практичних навичок	ZH-1,UM-1-K-1,AB-1	
L-2	Antisepsis. Historical background. Ways of spreading exogenous and endogenous infection. Types of antiseptics. Characteristics of antiseptics and methods of their application. Asepsis. Definition. Nosocomial infection, sanitary-epidemic regime. Aseptic mode. Prevention of the spread of HIV infection. Coronavirus COVID infection. Algorithm of actions at disease registration.	Information-on lecture, visualization - tables, drawings, videos	ZH-2,UM-2-K-2,AB-2	
P-2	Desmurgia. Bandages on the abdomen, perineum, lower extremity. Plaster technique.	Written survey, tests, situational tasks, practical skills training	ZH-2,UM-2-K-2,AB-2	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-2	Topic 2. Desmurgia. Bandages on the abdomen, perineum, lower extremity. Plaster technique.	Practical skills training	ZH-2,UM-2-K-2,AB-2	
L-3	Bleeding. Classification. Causes of bleeding. Blood loss. Changes in the body in acute blood loss. Clinical signs and diagnosis of various bleedings. Determining the amount of blood lost. Temporary and final cessation of bleeding.	Information-on lecture, visualization - tables, drawings, videos	ZH-3,UM-3-K-3,AB-3	
P-3	Asepsis and antiseptics. Types of antiseptics. Characteristics of the main groups of antiseptics and the main methods of their application. Coronavirus COVID-infection. Algorithm of actions at disease registration.	Written survey, tests, situational tasks, practical skills training	ZH-3,UM-3-K-3,AB-3	<b>Doc. Kushta Yu.F. Doc. Mahlovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-3	Topic 3. Asepsis and antiseptics. Types of antiseptics. Characteristics of the main groups of antiseptics and the main methods of their	Practical skills training	ZH-3,UM-3-K-3,AB-3	



	application.			
L-4	Fundamentals of clinical transfusiology. Blood transfusion as a living tissue transplant operation. Antigenic blood system. Blood groups. Clinical significance of group differentiation. Indications and contraindications to blood transfusion. Methods of blood transfusion. Complications of blood transfusion: classification, diagnosis, treatment, prevention. Prevention of transmission of infections (viral hepatitis, syphilis, malaria, HIV infection). Alternatives to blood transfusions and blood components. Blood substitutes, classification. Mechanism of action. Indications for use	Information-on lecture, visualization - tables, drawings, videos	ZH-4,UM-4-K-4,AB-4	
P-4	Asepsis. Modern methods of sterilization. Nosocomial infection. Sanitary and epidemiological regime. Prevention of transmissible infections	Written survey, tests, situational tasks, practical skills training	ZH-4,UM-4-K-4,AB-4	<b>Doc. Kushta Yu.F. Doc. Mahlovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-4	Topic 4. Asepsis. Modern methods of sterilization. Nosocomial infection. Sanitary and epidemiological regime. Prevention of transmissible infections		ZH-4,UM-4-K-4,AB-4	
L-5	Anesthesiology. Varieties of local anesthesia and anesthesia. Indications and contraindications to the use of various methods of local and general anesthesia. Complications of local and general anesthesia, their prevention and treatment.	Information-on lecture, visualization - tables, drawings, videos	ZH-5,UM-5-K-5,AB-5	
P-5	Bleeding and blood loss. Methods of temporary and final cessation of bleeding. Hemorrhagic shock	Written survey, tests, situational tasks, practical skills training	ZH-5,UM-5-K-5,AB-5	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-5	Topic 5. Bleeding and blood loss. Methods of temporary and final cessation of bleeding. Hemorrhagic shock	Practical skills training	ZH-5,UM-5-K-5,AB-5	
L-6	Trauma and trauma. Traumatic injuries of soft tissues, bones, joints,	Information-on	ZH-6,UM-6-	

	skull, abdomen, chest: clinical signs, diagnosis, first aid, principles of treatment. Polytrauma. Prolonged compression syndrome	lecture, visualization - tables, drawings, videos	K-6,AB-6	
P-6	Blood transfusion. Determination of blood groups by ABO and Rh-factor systems. Samples for individual compatibility by ABO and Rh-factor systems, biological test. Complications of blood transfusion and their prevention.	Written survey, tests, situational tasks, practical skills training	ZH-6,UM-6-K-6,AB-6	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-6	Topic 6. Blood transfusion. Determination of blood groups by ABO and Rh-factor systems. Samples for individual compatibility by ABO and Rh-factor systems, biological test. Complications of blood transfusion and their prevention.	Practical skills training	ZH-6,UM-6-K-6,AB-6	
L-7	Wounds: classification, clinical signs, diagnosis. Wound process. Types of wound healing. Prevention of wound infection. Wound healing.	Information- on lecture, visualization - tables, drawings, videos	ZH-1,UM-1-K-1,AB-1	
P-7	Donation. Prevention of transmission of infectious diseases during transfusion of blood components. Blood components and blood substitutes: classification, mechanism of action, indications and methods of application.	Written survey, tests, situational tasks, practical skills training	ZH-1,UM-1-K-1,AB-1	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-7	Topic 7. Donation. Prevention of transmission of infectious diseases during transfusion of blood components. Blood components and blood substitutes: classification, mechanism of action, indications and methods of application.	Practical skills training	ZH-7,UM-7-K-7,AB-7	
L-8	Thermal injury. Burns: pathogenesis, classification, clinic, first aid, principles of treatment. Electrotrauma: the mechanism of electric shock, clinical signs, diagnosis, first aid and its features. Cold lesions: pathogenesis, classification, clinic, first aid, principles of treatment.	Information- on lecture, visualization - tables, drawings, videos	ZH-8,UM-8-K-8,AB-8	
P-8	Local anesthesia. Types. Method.	Written	ZH-	<b>Doc. Kushta</b>

	Indications and contraindications.	survey, tests, situational tasks, practical skills training	8,UM-8-K-8,AB-8	<b>Yu.F. Doc. Maglyovany</b> <b>V.A. Doc. Matviychuk</b> <b>O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-8	Topic 8. Local anesthesia. Types. Method. Indications and contraindications.	Practical skills training	ZH-8,UM-8-K-8,AB-8	
L-9	General issues of surgical infection. Pathogens of nonspecific surgical infection and mechanisms of their aggression. Translocation of microflora. Local and general reaction of the organism. Diagnostic methods and general principles of treatment. HIV infection in surgery.	Information-on lecture, visualization - tables, drawings, videos	ZH-9,UM-9-K-9,AB-9	
P-9	General anesthesia. Inhalation and non-inhalation anesthesia. Types, indications and contraindications, complications.	Written survey, tests, situational tasks, practical skills training	ZH-9,UM-9-K-9,AB-9	<b>Doc. Kushta</b> <b>Yu.F. Doc. Maglyovany</b> <b>V.A. Doc. Matviychuk</b> <b>O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-9	Topic 9. General anesthesia. Inhalation and non-inhalation anesthesia. Types, indications and contraindications, complications.	Practical skills training	ZH-9,UM-9-K-9,AB-9	
L-10	Acute purulent diseases of the skin, subcutaneous tissue, fascia, muscles, cellular spaces, lymph vessels and nodes. Etiology, pathogenesis, clinic, diagnosis, treatment. Acute purulent diseases of bones, joints, serous cavities, hands and fingers. Etiology, pathogenesis, clinic, diagnosis, treatment.	Information-on lecture, visualization - tables, drawings, videos	ZH-10,UM-10-K-10,AB-10	
P-10	Resuscitation: terminal conditions; clinical death; basic cardiopulmonary resuscitation. Intensive care of surgical patients.	Written survey, tests, situational tasks, practical skills training	ZH-10,UM-10-K-10,AB-10	<b>Doc. Kushta</b> <b>Yu.F. Doc. Maglyovany</b> <b>V.A. Doc. Matviychuk</b> <b>O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-10	Topic 10. Resuscitation: terminal conditions; clinical death; basic cardiopulmonary resuscitation. Intensive care of surgical patients.	Practical skills training	ZH-10,UM-10-K-10,AB-10	
L-11	Anaerobic non-clostridial and clostridial infection (gas gangrene).	Information-on	ZH-11,UM-	

	Acute surgical specific infection (tetanus). Etiology, clinic, diagnosis, treatment, prevention.	lecture, visualization - tables, drawings, videos	11-K-11,AB-1	
P-11	Closed soft tissue injuries: bruising, concussion, rupture. Clinic, diagnosis of closed soft tissue injuries, first aid, principles of treatment.	Written survey, tests, situational tasks, practical skills training	ZH-11,UM-11-K-11,AB-1	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-11	Topic 11. Closed soft tissue injuries: bruising, concussion, rupture. Clinic, diagnosis of closed soft tissue injuries, first aid, principles of treatment.	Practical skills training	ZH-11,UM-11-K-11,AB-1	
L-12	Surgical sepsis (Sepsis-3): definition, etiology, pathogenesis, classification, clinical manifestations, diagnosis, principles of treatment.	Information-on lecture, visualization - tables, drawings, videos	ZH-12,UM-12-K-12,AB-12	
P-12	Fractures and dislocations: classification; clinical manifestations; diagnostics; first aid; principles of treatment.	Written survey, tests, situational tasks, practical skills training	ZH-12,UM-12-K-12,AB-12	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-12	Topic 12. Fractures and dislocations: classification; clinical manifestations; diagnostics; first aid; principles of treatment.	Practical skills training	ZH-12,UM-12-K-12,AB-12	
L-13	Tumors. Etiology, pathogenesis. Benign and malignant tumors. Histogenetic, morphological, clinical and international (TNM) classifications. Clinical groups of cancer patients. Clinical manifestations. Diagnostic methods	Information-on lecture, visualization - tables, drawings, videos	ZH-13,UM-13-K-13,AB--13	
P-13	Polytrauma. Multiple and combined injuries. Traumatic shock. Prolonged compression syndrome. First aid and principles of treatment.	Written survey, tests, situational tasks, practical skills training	ZH-13,UM-13-K-1,AB-13	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M. R.</b>
CPC-13	Polytrauma. Multiple and combined	Practical	ZH-	

	injuries. Traumatic shock. Prolonged compression syndrome. First aid and principles of treatment.	skills training	13,UM-13-K-1,AB-13	
L-14	Tumors. Principles of treatment.	Information- on lecture, visualization - tables, drawings, videos	ZH-14,UM-14-K-14,AB-14	
P-14	Cranial brain injury. Trauma to the chest, abdominal organs and urinary system. Medical care at the pre- and hospital stages.	Written survey, tests, situational tasks, practical skills training	ZH-14,UM-14-K-14,AB-14	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R</b>
CPC-14	14. Cranial brain injury. Trauma to the chest, abdominal organs and urinary system. Medical care at the pre- and hospital stages.	Practical skills training	ZH-14,UM-14-K-14,AB-14	
L-15	Examination of a surgical patient. Collection of complaints, medical history and life. Objective examination of the head, neck, chest, abdomen, musculoskeletal system, blood vessels, lymph nodes. Principles of writing a medical history.	Information- on lecture, visualization - tables, drawings, videos	ZH-15,UM-15-K-15,AB-15	
P-15	Wounds, definition, classification. The course of the wound process. Features of modern gunshot wound and mine damage. Primary surgical treatment of wounds.	Written survey, tests, situational tasks, practical skills training	ZH-15,UM-15-K-15,AB-15	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R</b>
CPC-15	Topic 15. Wounds, definition, classification. The course of the wound process. Features of modern gunshot wound and mine damage. Primary surgical treatment of wounds.	Practical skills training	ZH-15,UM-15-K-15,AB-15	
P-16	Uninfected and infected wounds. Wound healing by primary and secondary tension. Principles of treatment tactics	Written survey, tests, situational tasks, practical skills training	ZH-16,UM-16-K-16,AB-16	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M. R.</b>

CPC-16	Topic 16. Uninfected and infected wounds. Wound healing by primary and secondary tension. Principles of treatment tactics	Practical skills training	ZH-16,UM-16-K-16,AB-16	
P-17	Burns: thermal, radiation, chemical. Clinic, first aid for various types of burns. Burn disease. Therapeutic tactics in the pre- and hospital stages. Freezing. Classification. Clinical signs. First aid and treatment. Electrotrauma: the mechanism of electric shock; clinical signs; diagnostics; first aid and its features.	Written survey, tests, situational tasks, practical skills training	ZH-17,UM-17-K-17,AB-17	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-17	Topic 17. Burns: thermal, radiation, chemical. Clinic, first aid for various types of burns. Burn disease. Therapeutic tactics in the pre- and hospital stages. Freezing. Classification. Clinical signs. First aid and treatment. Electrotrauma: the mechanism of electric shock; clinical signs; diagnostics; first aid and its features.	Practical skills training	ZH-17,UM-17-K-17,AB-17	
P-18	General issues of surgical infection: classification; pathogens of surgical infection. Pathogenesis of development of local and general reaction of an organism at a surgical infection. Principles of diagnosis and treatment.	Written survey, tests, situational tasks, practical skills training	ZH-18,UM-18-K-18,AB-18	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M. R.</b>
CPC-18	Topic 18. General issues of surgical infection: classification; pathogens of surgical infection. Pathogenesis of development of local and general reaction of an organism at a surgical infection. Principles of diagnosis and treatment.	Practical skills training	ZH-18,UM-18-K-18,AB-18	
P-19	Acute purulent soft tissue diseases: boil, carbuncle, hydradenitis, abscess, phlegmon. mastitis, erysipelas, lymphangitis, lymphadenitis.	Written survey, tests, situational tasks, practical skills training	ZH-19,UM-19-K-19,AB-19	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-19	Topic 19. Acute purulent soft tissue diseases: boils, carbuncles, hydradenitis, abscess, phlegmon. mastitis, erysipelas, lymphangitis, lymphadenitis.	Practical skills training	ZH-19,UM-19-K-19,AB-19	
P-20	Felon. Phlegmons of the hand.	Written	ZH-	<b>Doc. Kushta</b>

	Features of the anatomical structure of the hand. Etiology, pathogenesis, clinic, diagnosis, treatment.	survey, tests, situational tasks, practical skills training	20,UM-20-K-20,AB-20	<b>Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-20	Topic 20. Panaritium. Phlegmons of the hand. Features of the anatomical structure of the hand. Etiology, pathogenesis, clinic, diagnosis, treatment.	Practical skills training	ZH-20,UM-20-K-20,AB-20	
P-21	Purulent bone diseases. Osteomyelitis. Classifications, diagnosis, principles of treatment. Arthritis as a purulent surgical infection, secondary arthritis.	Written survey, tests, situational tasks, practical skills training	ZH-21,UM-21-K-21,AB-21	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-21	Topic 21. Purulent bone diseases. Osteomyelitis. Classifications, diagnosis, principles of treatment. Arthritis as a purulent surgical infection, secondary arthritis.	Practical skills training	ZH-21,UM-21-K-21,AB-21	
P-22	Necrotizing fasciitis. Deep purulent soft tissue lesions. Subfascial and paraorganic phlegmons.	Written survey, tests, situational tasks, practical skills training	ZH-22,UM-22-K-22,AB-22	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-22	Topic 22. Necrotizing fasciitis. Deep purulent soft tissue lesions. Subfascial and paraorganic phlegmons.	Practical skills training	ZH-22,UM-22-K-22,AB-22	
P-23	Necrotizing fasciitis. Deep purulent soft tissue lesions. Subfascial and paraorganic phlegmons.	Written survey, tests, situational tasks, practical skills training	ZH-23,UM-23-K-23,AB-23	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-23	Topic 23. Anaerobic surgical infection: pathogens, features of clinical symptoms and course, principles of treatment. Anaerobic gas gangrene: etiology, pathogenesis, clinic, treatment, specific and nonspecific prevention. Tetanus: etiology, pathogenesis, clinic, treatment, specific and	Practical skills training	ZH-23,UM-23-K-23,AB-23	

	nonspecific prevention			
P-24	Acute and chronic specific surgical infection. Tuberculosis. Actinomycosis. Anthrax. Wound diphtheria. Etiology, pathogenesis, clinic, diagnosis, treatment, prevention.	Written survey, tests, situational tasks, practical skills training	ZH-24,UM-24-K-24,AB-24	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-24	Topic 24. Acute and chronic specific surgical infection. Tuberculosis. Actinomycosis. Anthrax. Wound diphtheria. Etiology, pathogenesis, clinic, diagnosis, treatment, prevention.	Practical skills training	ZH-24,UM-24-K-24,AB-24	
P-25	Surgical sepsis (Sepsis-3): definition, etiology, classification, pathogenesis, clinical manifestations, diagnosis, principles of treatment. Septic shock. Multiple organ failure syndrome.	Written survey, tests, situational tasks, practical skills training	ZH-25,UM-25-K-25,AB-25	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-25	Topic 25. Surgical sepsis (Sepsis-3): definition, etiology, classification, pathogenesis, clinical manifestations, diagnosis, principles of treatment. Septic shock. Multiple organ failure syndrome.	Practical skills training	ZH-25,UM-25-K-25,AB-25	
P-26	Mortification. Necrosis. Gangrene. Ulcers. Fistulas. Causes. Clinical manifestations, diagnosis, treatment.	Written survey, tests, situational tasks, practical skills training	ZH-26,UM-26-K-26,AB-26	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-26	Topic 26. Death. Necrosis. Gangrene. Ulcers. Fistulas. Causes. Clinical manifestations, diagnosis, treatment.	Practical skills training	ZH-26,UM-26-K-26,AB-26	
P-27	Surgery. Classification of surgical operations. Stages of surgery. Preoperative preparation of the patient and management of the postoperative period. Features of surgery in the context of incurable disease, indications. The concept of palliative surgery.	Written survey, tests, situational tasks, practical skills training	ZH-27,UM-27-K-27,AB-27	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-27	Topic 27. Surgery. Classification of surgical operations. Stages of surgery. Preoperative preparation of the patient and management of the postoperative period. Features of	Practical skills training	ZH-27,UM-27-K-27,AB-27	



	surgery in the context of incurable disease, indications. The concept of palliative surgery.			
P-28	Transplantology. Definition of the concept. Organ transplantation. Deontological and legal aspects of transplantation.	Written survey, tests, situational tasks, practical skills training	ZH-28,UM-28-K-28,AB-28	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R</b>
CPC-28	Topic 28. Transplantology. Definition of the concept. Organ transplantation. Deontological and legal aspects of transplantation	Practical skills training	ZH-28,UM-28-K-28,AB-28	
P-29	Tumors. Etiology, pathogenesis. Benign and malignant tumors. Histogenetic, morphological, clinical and international (TNM) classifications. Clinical groups of cancer patients. Clinical manifestations. Diagnostic methods	Written survey, tests, situational tasks, practical skills training	ZH-29,UM-29-K-29,AB-29	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-29	Topic 29. Tumors. Etiology, pathogenesis. Benign and malignant tumors. Histogenetic, morphological, clinical and international (TNM) classifications. Clinical groups of cancer patients. Clinical manifestations. Diagnostic methods.	Practical skills training	ZH-29,UM-29-K-29,AB-29	
P-30	Tumors. Principles of treatment. Principles of treatment. Varieties of surgical operations for cancer (radical, palliative, symptomatic). Chemotherapy, hormone therapy, immunotherapy, psycho-social rehabilitation. Palliative and hospice therapy of cancer patients.	Written survey, tests, situational tasks, practical skills training	ZH-30,UM-30-K-30,AB-30	<b>Doc. Kushta Yu.F. Doc. Maglyovany V.A. Doc. Matviychuk O.B. As. Gerych H.I. As. Paranyak M.R.</b>
CPC-30	Topic 30. Tumors. Principles of treatment. Principles of treatment. Varieties of surgical operations for cancer (radical, palliative, symptomatic). Chemotherapy, hormone therapy, immunotherapy, psycho-social rehabilitation. Palliative and hospice therapy of cancer patients.	Practical skills training	ZH-30,UM-30-K-30,AB-30	
P-31	Examination of a surgical patient. Collection of complaints, medical history and life. Objective examination of the head, neck, chest. Abdomen, musculoskeletal system,	Written survey, tests, situational tasks, practical	ZH-31,UM-31-K-31,AB-31	

	blood vessels, lymph nodes.	skills training		
CPC-31	Examination of a surgical patient. Collection of complaints, medical history and life. Objective examination of the head, neck, chest. Abdomen, musculoskeletal system, blood vessels, lymph nodes.	Written survey, tests, situational tasks, practical skills training	ZH-31,UM-31-K-31,AB-31	
P-32	Curation of a surgical patient	Written survey, tests, situational tasks, practical skills training	ZH-32,UM-32-K-32,AB-32	
CPC-32	Curation of a surgical patient		ZH-32,UM-32-K-32,AB-21	
P-33	Protection of medical history.	Written survey, tests, situational tasks, practical skills training	ZH-33,UM-33-K-33,AB-33	
CPC-33	Curation of a surgical patient	Written survey, tests, situational tasks, practical skills training	ZH-33,UM-33-K-33,AB-33	

*It is necessary to present the system of organization of classes, the use of interactive methods, educational technologies used for the transfer and acquisition of knowledge, skills and abilities.*

### **8. Verification of learning outcomes**

#### **Current control**

**is carried out during the training sessions and aims to check the assimilation of students' educational material (it is necessary to describe the forms of current control during the training sessions). Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. The final grade for the current educational activity is set on a 4-point (national) scale**

Learning outcome code	Code type of lesson	Method of verifying learning outcomes	Enrollment criteria
ZPhh-1-Zh-33, U1-U33, K1-K33, AB1-AB 33	P1, P2,P3...-P33	Oral and written questioning, solving test tasks (to control the initial and final level of knowledge), solving typical and atypical situational problems,	The student independently performed this or that practical skill, clearly chose the necessary way to provide assistance in a particular

		<p>under the control of the teacher is training relevant practical skills and professional skills</p> <p>The teacher uses interactive teaching methods such as "Microphone", "Incomplete sentence", "Discussion", "Competitive group method", "Brainstorming", "Case", etc.</p>	<p>clinical situation - "5";</p> <p>The student independently performed this or that practical skill, but at the same time made two or three insignificant mistakes - "4";</p> <p>The student can not independently choose an adequate way to help in a particular clinical situation, makes gross mistakes in performing practical skills - "3";</p> <p>The student does not show knowledge of ways to provide assistance in a particular clinical situation, can not give any correct answer to the question- "2"</p>
<b>Final control</b>			
<b>Examination criteria / differentiated test</b>			
Examination			
Differentiated credit	<p>The final control in the form of a differentiated test is carried out upon completion of the study of all topics in the last control lesson. Students who have completed all types of work provided by the curriculum and scored at least the minimum number of points during the study of the module are admitted to the final control.</p> <p>Final control includes standardized control of theoretical training (testing, oral examination, assessment of individual tasks) and practical training (structured according to the procedure control of practical skills on simulators and models).</p>	<p>The maximum number of points that a student can score when compiling a differential is 80.</p> <p>The minimum number of points when compiling a difzalik - not less than 50.</p> <p>The grade in the discipline is defined as the sum of points for current educational activities (not less than 72) and points</p>	

		for tasks (tests, situational tasks, practical skills) on the differential (not less than 50).
<p><i>The maximum number of points that a student can score for the current academic activity for admission to the exam (differentiated test) is 120 points.</i></p> <p><i>The minimum number of points that a student must score for the current academic activity for admission to the exam (differentiated test) is 72 points.</i></p> <p><i>The calculation of the number of points is based on the student's score on a 4-point (national) scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places. The resulting value is converted into points on a multi-point scale as follows:</i></p> $x = (CA \times 120) / 5$		
<p><b>Criteria for assessing an objective structured practical (clinical) exam / Complex of practice-oriented exam Master's thesis</b></p>		
<p>1. <b>1. Course policy</b> 2.</p>		
<p>The subject of study of the discipline "General Surgery" are: measures for the organization of sanitary and epidemiological regime in the surgical clinic; dressing material and methods of its application; bleeding and ways of its temporary and final stop; transfusion of donor blood components, complications of blood transfusion and their prevention; basics of anesthesiology and resuscitation; clinic, diagnosis, first aid, principles of treatment for traumatic injuries; general issues of surgical infection, clinic, diagnosis, treatment, prevention of certain types of surgical infection; basics of transplantology, basics of clinical oncology; methodology of examination of a surgical patient.</p>		
<p><b>10. Literature</b></p>		
<p><b>Basic</b></p> <ol style="list-style-type: none"> <li>1. General surgery: a textbook / C. D. Khimich, MD Zheliba, IG Gerich and others: ed. Professors SD Khimich, MD Zheliba, . - K.: ВСВ «Медицина», 2018. - 608с.</li> <li>2. General surgery: a textbook / MD Zheliba, SD Khimich, IG Gerich, etc .: ed. professors MD Zheliba, SD Khimich. - K .: ВСВ «Медицина», 2010, 2016. - 448 с.</li> <li>3. General surgery: textbook / ND Zheliba, SD Khimich, IG Gerich, etc .: ed. professors ND Zheliba, SD Khimich. - K.: ВСИ «Медицина», 2011, 2016. - 488 с.</li> <li>4. Surgery. Volume 1: Textbook of general surgery / edited by JS Bereznytsky, MP Zakharash, VG Mishalov, VO Shidlovsky. - Dnipropetrovsk .: RVA "Dnipro VAL", 2006. - 443p.</li> <li>5. Pantio VI General surgery: textbook / VI Pantyo, VMShimon, OO Boldizhar - Uzhhorod: IVA, 2010. - 464с.</li> <li>6. Butyrsky OG General surgery: a guide for students, interns and young surgeons / OG Butyrsky. - Simferopol: PE "Elinho", 2009. - 460 p.</li> <li>7. Butyrsky AG General surgery (with algorithms for the care of surgical patients): a</li> </ol>		

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#### **Auxiliary:**

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2. Care of patients of surgical profile / VP Polevoy, OY Khomko, SP Poleva, AS Palyanytsya, IO Vyshnevsky. - Chernivtsi: Medical University - 2012. - 380 p.
3. Kazitsky VM Desmurgia / VM Kazitsky, NA Korzh. - Kyiv, 1999.
4. Clinical oncology: Handbook for students of higher medical educational institutions of the IV level of accreditation and interns / BA Bolyukh, VV Petrushenko, AA Tkach, etc. ; for order. MD, prof. B. A. Bolyukha. - Vinnytsia: SE "DKF", 2012. - 704 p.
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### **11. Equipment, logistics and software of the discipline / course**

### **12. Additional information**

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