

	Primary surgical wound treatment Kinds primary seams. Treatment clean wound in the postoperative period. Features gunshot wounds.	
18	Topic 18. Practical class 18. Infected wounds. Course wounded process in purulent the wounds Surgical processing purulent wound, types secondary seams. Treatment purulent wound in dependence from phases wounded process. Kinds drainage purulent wound	2
19	Topic 19. Practical class 19. Closed injuries of soft tissues, skull. The concept of traumatism. Traumatic shock. Clinical manifestations of closed injury of soft tissues, skull. Prevention of the development of traumatic shock.	2
20	Topic 20. Practical class 20. Closed chest injuries. Chest injuries. Clinical manifestations of closed chest injury. Pleural puncture. Pneumothorax, clinical picture, diagnosis, treatment. First aid for tension pneumothorax. Hemothorax, clinical picture, diagnosis, treatment.	2
21	Topic 21. Practical class 21. Closed damage to the organs of the abdominal cavity. Injuries of abdominal organs. Intraperitoneal bleeding. Damage to hollow organs. Clinical manifestations. Diagnostic methods. First aid. Methods of treatment. Assessment of the severity of the condition, the prognosis of lethality and the choice of surgical tactics for combat injuries.	
22	Topic 22. Practical class 22. Fractures. Mechanism of occurrence. The formation of a bone callus. First aid for fractures. Definition of a fracture. Classification. Mechanism of fracture. Types of displacement of bone fragments. The formation of a bone callus. Clinical picture. Diagnostic methods. Providing first aid for fractures, its tasks. Means of transport immobilization. The structure of tires of Dieterichs and Kramer. Providing first aid to a patient with a fracture. Placing tires from improvised materials, Kramer and Dieterichs. The use of anti-shock splints for fractures of the pelvic bones.	2
23	Topic 23. Practical class 23. Treatment of fractures in a hospital. Dislocations The main tasks of treatment of fractures in a hospital. The main types of closed and open treatment. Analgesia Fixation and extension methods of treatment. Indications for surgical intervention. Methods of operative interventions for fractures. Consequences of fracture treatment. Dislocations, concepts. Classification. Mechanism of occurrence. Clinical manifestations. Differential diagnosis between fracture and dislocation. Treatment of sprains.	2
24	Topic 24. Practical class 24. Burn disease. Freezing. Electric injury. Classification of burns by depth, area, severity. Clinical manifestations of thermal burns. Symptoms of burns with chemical compounds. Radiation burns. Periods of the course of burn disease. First aid for various types of burns. Treatment of burns in a hospital. Treatment of burn disease according to the course. Types of operative interventions for burns. Freezing. Definition. degrees Clinical manifestations. Peculiarities of providing first aid to a patient with frostbite in the pre-reactive period. Treatment of frostbite in a hospital. Electric injury, features of the course. Providing first aid for electric shock.	2
25	Topic 25. Practical class 25. Combat surgical trauma (pre-hospital care). Peculiarities of providing medical aid during hostilities and emergencies. Organization and content of medical care for the wounded and injured in the conditions of hostilities. The concept of	2

	levels of medical care. Tactical protocol Combat Casualty Care Guidelines. Use of MARCH, PAWS algorithms. The concept of medical triage at the stages of medical evacuation.	
26	Topic 26. Practical class 26. Surgical infection. Classification. Etiology. Pathogenesis. Methods of general and local treatment. Surgical aspects of the HIV problem.	2
27	Topic 27. Practical class 27. Acute purulent diseases of soft tissues: abscess, phlegmon, furuncle, carbuncle. Clinical picture. Methods of diagnosis and differential diagnosis. Operative interventions for these diseases.	2
28	Topic 28. Practical class 28. Acute purulent diseases of glandular organs, soft tissues: hidradenitis, mastitis, dysentery, lymphadenitis, lymphangitis, paraproctitis. Clinical picture. Diagnostics. Treatment.	2
29	Topic 29. Practical class 29. Purulent diseases of the hand. Panaritius, phlegmon of the hand. Definition, classification. Clinical picture. Diagnosis, Treatment.	2
30	Topic 30. Practical class 30. Purulent bone diseases. Acute hematogenous osteomyelitis. Pathogenesis, sequestral capsule formation. Diagnostics, treatment tactics. Types of operative treatment. Chronic forms of osteomyelitis, their treatment.	2
31	Topic 31. Practical class 31. Acute specific surgical infection. Tetanus Diphtheria of wounds. Anthrax. Etiology, pathogenesis. Clinic. Diagnostic methods. Treatment.	2
32	Topic 32. Practical class 32. Acute non-specific surgical infection. Gas gangrene. Putrid infection. Etiology, pathogenesis, clinical picture, diagnosis, treatment.	2
33	Topic 33. Practical class 33. General purulent infection (sepsis). Endogenous intoxication during acute surgical infection. Modern provisions of the concept of sepsis. Classification. Pathogenetic features of the course. Modern diagnostic methods. Principles of treatment. Endogenous intoxication during surgical infection. Methods of detoxification and immunocorrection. Surgical aspects of AIDS and drug addiction.	2
34	Topic 34. Practical class 34. Pleurisy. Peritonitis. Classification. Etiology. Clinic. Diagnostics. Principles of treatment.	2
35	Topic 35. Practical class 35. Tumors. Classification, clinical groups. International classification. Differential diagnosis of malignant and benign growth. Clinical picture. Modern methods of diagnosis and treatment. Peculiarities of surgical intervention in the context of an incurable disease, indications. Concept of palliative surgery .	2
36	Topic 36. Practical class 36. Acute and chronic disorders of arterial, venous blood circulation and lymph circulation. Necrosis. Gangrene. Ulcers. Fistula. Foreign objects. Acute and chronic disorders of arterial, venous blood circulation and lymph circulation. Death, gangrene, fistula, ulcer. Types, etiology, clinic, differential diagnosis, principles of treatment. Clinic of foreign bodies of various localization, first aid.	2
37	Topic 37. Practical class 37. Methods of examination and curation of surgical patients. Structure of medical history. Methodology of examination of patients. Modern	2

	laboratory, instrumental and hardware research methods. Complete examination of the patient. Formulation of the diagnosis. Purpose of treatment.	
38	Topic 38. Practical class 38. Curation of surgical patients. Clinical examination of the patient. Collection of complaints, medical history, life history. Conducting an objective examination of the patient: examination, palpation, percussion, auscultation. Justification of the previous diagnosis. Appointment of laboratory, instrumental and hardware research methods, their analysis. Justification of the method of treatment. Observation of the patient. Completion of educational medical history.	2
39	Topic 39. Practical class 39. Curation of surgical patients. Defense of educational medical history.	2
40	Differentiated credit.	2
	Together	80

#### 5.4. Laboratory topics classes

Laboratory classes are not provided.

#### 6. Independent work of a student of higher education

No	Title of the topic / types of tasks	Number of hours
1	Preparation for practical class 1. Introduction to surgery. Hygiene in a surgical hospital. The work of middle staff in the conditions of the surgical department. Stages of development of surgery, domestic surgical schools; organization of surgical care in Ukraine. Rules of conduct in a surgical clinic. Issues of surgical deontology. The structure of the surgical clinic. The concept of hygiene in a surgical hospital with the aim of preventing the spread of hospital infection. Hygiene of the body, clothes of medical personnel, hygiene of underwear and clothes of patients. Responsibilities of the duty and senior nurse. The post of a nurse. Medical documentation. Medical manipulations: thermometry, injections (technique of conducting). Preparation for practical training	1
2	Preparation for practical class 2. Desmurgia. Concept, definition. Dressing material. Overlay rules. Typical bandages. Bandages on the head, neck, chest. Care of patients operated on the head, neck, chest.	2
3	Preparation for practical class 3. Desmurgia. Care of patients operated on organs of the abdominal cavity, perineum, limbs. Bandages for the abdomen, crotch, limbs. Care of patients with fractures. Gypsum technique. Gypsum powder quality tests. Rules of plaster technique.	1
4	Preparation for practical class 4. Asepsis. Sterilization of dressing material and surgical linen. Organization of work in the operating room. Surgical treatment of the surgeon's hands and the operating field. Familiarization with the method of manufacturing napkins, tampons, balls. Preparation of surgical linen and dressing material for sterilization, methods of laying in Schimmelbush box. Construction and operation of an autoclave,	1

	<p>safety equipment. Methods of preparing the surgeon's hands for surgery. Care of the surgeon's hands outside the clinic. Treatment of the operating field. Structure of the operating unit. Types of cleaning. Methods of transporting patients to the operating room. Rules for wearing surgical underwear. Preparation of instruments for sterilization. Preparation of cleaning and disinfecting solutions. Tests on the quality of pre-sterilization treatment of tools. Methods of sterilization of cutting, optical, general surgical instruments. Types of suture material. Methods of sterilization of suture material.</p>	
5	<p>Preparation for practical class 5. Antisepsis. Care of patients with purulent pathology. Peculiarities of care for patients with purulent pathology. Organization of purulent dressing. Features of dressings and care for patients with anaerobic infection. Methods of modern antiseptics, their characteristics. Disposal of dressing material contaminated with purulent secretions.</p>	1
6	<p>Preparation for practical class 6. Surgery. Preparation of patients for operations. Care of patients in the postoperative period. Concept of surgical operation. Classification of operative interventions, stages of implementation. Preoperative period, its tasks. Peculiarities of preparing patients for planned and emergency operations. Preoperative period: care of the patient's skin, sanitation of the oral cavity, hair shaving, bowel cleansing with enemas, hygiene of patients' underwear and clothing. Basic principles of patient care in the postoperative period. Prevention of possible complications. Nutrition of patients. Dynamic laparoscopy for abdominal injuries, its role in diagnosis and management of the postoperative period. Peculiarities of prevention of non-infectious postoperative complications during operations on abdominal organs.</p>	1
7	<p>Preparation for practical class 7. Bleeding. Definition and types of bleeding. The mechanism of self-stopping of bleeding. Methods of temporarily stopping bleeding (finger pressure, pressure bandage, twist, tourniquet).</p>	1
8	<p>Preparation for practical class 8. Methods of temporary stopping of bleeding. Carrying out a temporary stoppage of bleeding in case of arterial or venous bleeding on the limbs. Finger pressing. Maximum flexion of the limb. Elevated limb position. Direct pressure on the wound. Compression bandage. Applying the Esmarch tourniquet. Overlaying the turnstile of the CAT. Use of improvised materials.</p>	2
9	<p>Preparation for practical class 9. Methods of definitive stopping of bleeding. Methods of definitive stopping of bleeding: mechanical, physical, biological. Vascular suture. Transplantation, alloplasty.</p>	1
10	<p>Preparation for practical class 10. The doctrine of blood. Preparations and components blood. Modern blood substitutes The history of the development of blood transfusion. Methods of determining blood group and Rhesus blood type. Mechanism of action of transfused blood and its components. Drugs and blood components. Blood substitutes, classification, indications for use.</p>	1
11	<p>Preparation for practical class 11. Transfusion of blood and blood products. Indications and contraindications for blood transfusion. Macroscopic determination of blood quality. Determination of group, individual and biological compatibility of donor and recipient blood. Ways and methods of transfusion. Observation of the patient during</p>	2

	transfusion, documentation.	
12	Preparation for practical class 12. Possible errors and complications during transfusion blood. Modern blood substitutes Possible errors and complications during transfusion blood. Prevention and first aid for complications hemotransfusion .	1
13	Preparation for practical class 13. Hemorrhagic shock. Local and systemic bleeding symptoms. Determination of blood loss. Pathophysiological mechanisms of blood loss compensation. Classification of bleeding by volume. Hemorrhagic shock. Clinical picture of hemorrhagic shock. Determination of severity and stage of hemorrhagic shock. Transfusion-infusion intensive therapy of hemorrhagic shock.	1
14	Preparation for practical class 14. Local anesthesia. Types of local anesthesia (layer infiltration, regional, spinal, intraosseous). Preparations for local anesthesia. Indications, contraindications. Possible complications.	1
15	Preparation for practical class 15. Inhalation anesthesia. Non-inhalation anesthesia. Indications, contraindications. Possible complications. Concept of premedication. Preparations for inhalation, endotracheal anesthesia. Stages of ether narcosis. Mask anesthesia, technique. The structure of the device for inhalation anesthesia. Types of respiratory circuits. Methodology of endotracheal anesthesia. Types of non-inhalation anesthesia. Drugs. Methods of application. Complications of anesthesia by stages and levels.	1
16	Preparation for practical class 16. Resuscitation measures in surgical patients. Urgent conditions. Intensive therapy and cardiopulmonary resuscitation. Indications and technique of artificial lung ventilation and indirect heart massage. Practicing the technique of cardiopulmonary resuscitation on a phantom.	1
17	Preparation for practical class 17. Wounds and the wound process. Prevention of infection in the wound. Treatment of clean wounds. Wounds, definition, classification . Wound structure and course wounded process in pure the wounds Characteristics of individual types of wounds and first aid for them. Conditions under which occurs infection in the wound and them elimination. The structure of a clean wound. Primary surgical wound treatment Kinds primary seams. Treatment clean wound in the postoperative period. Features gunshot wounds	1
18	Preparation for practical class 18. Infected wounds. Course wounded process in purulent the wounds Surgical processing purulent wound, types secondary seams. Treatment purulent wound in dependence from phases wounded process. Kinds drainage purulent wound	1
19	Preparation for practical class 19. Closed injuries of soft tissues, skull. The concept of traumatism. Traumatic shock. Clinical manifestations of closed injury of soft tissues, skull. Prevention of the development of traumatic shock.	1
20	Preparation for practical class 20. Closed chest injuries. Chest injuries. Clinical manifestations of closed chest injury. Pleural puncture. Pneumothorax, clinical picture, diagnosis, treatment. First aid for tension pneumothorax. Hemothorax, clinical picture, diagnosis, treatment.	1
21	Preparation for practical class 21. Closed damage to the organs of the abdominal cavity. Injuries of abdominal organs. Intraperitoneal bleeding. Damage to hollow organs. Clinical	1

	manifestations. Diagnostic methods. First aid. Methods of treatment. Assessment of the severity of the condition, the prognosis of lethality and the choice of surgical tactics for combat injuries.	
22	Preparation for practical class 22. Fractures. Mechanism of occurrence. The formation of a bone callus. First aid for fractures. Definition of a fracture. Classification. Mechanism of fracture. Types of displacement of bone fragments. The formation of a bone callus. Clinical picture. Diagnostic methods. Providing first aid for fractures, its tasks. Means of transport immobilization. The structure of tires of Dieterichs and Kramer. Providing first aid to a patient with a fracture. Placing tires from improvised materials, Kramer and Dieterichs. The use of anti-shock splints for fractures of the pelvic bones.	1
23	Preparation for practical class 23. Treatment of fractures in a hospital. Dislocations The main tasks of treatment of fractures in a hospital. The main types of closed and open treatment. Analgesia Fixation and extension methods of treatment. Indications for surgical intervention. Methods of operative interventions for fractures. Consequences of fracture treatment. Dislocations, concepts. Classification. Mechanism of occurrence. Clinical manifestations. Differential diagnosis between fracture and dislocation. Treatment of sprains.	1
24	Preparation for practical class 24. Burn disease. Freezing. Electric injury. Classification of burns by depth, area, severity. Clinical manifestations of thermal burns. Symptoms of burns with chemical compounds. Radiation burns. Periods of the course of burn disease. First aid for various types of burns. Treatment of burns in a hospital. Treatment of burn disease according to the course. Types of operative interventions for burns. Freezing. Definition. degrees Clinical manifestations. Peculiarities of providing first aid to a patient with frostbite in the pre-reactive period. Treatment of frostbite in a hospital. Electric injury, features of the course. Providing first aid for electric shock.	2
25	Preparation for practical class 25. Combat surgical trauma (pre-hospital care). Peculiarities of providing medical aid during hostilities and emergencies. Organization and content of medical care for the wounded and injured in the conditions of hostilities. The concept of levels of medical care. Tactical protocol Combat Casualty Care Guidelines. Use of MARCH, PAWS algorithms. The concept of medical triage at the stages of medical evacuation.	1
26	Preparation for practical class 26. Surgical infection. Classification. Etiology. Pathogenesis. Methods of general and local treatment. Surgical aspects of the HIV problem.	1
27	Preparation for practical class 27. Acute purulent diseases of soft tissues: abscess, phlegmon, furuncle, carbuncle. Clinical picture. Methods of diagnosis and differential diagnosis. Operative interventions for these diseases.	1
28	Preparation for practical class 28. Acute purulent diseases of glandular organs, soft tissues: hidradenitis, mastitis, dysentery, lymphadenitis, lymphangitis, paraproctitis. Clinical picture. Diagnostics. Treatment.	1
29	Preparation for practical class 29. Purulent diseases of the hand. Panaritius, phlegmon of the hand. Definition, classification. Clinical picture. Diagnosis, Treatment.	1
30	Preparation for practical class 30. Purulent bone diseases. Acute hematogenous osteomyelitis. Pathogenesis,	1

	sequestral capsule formation. Diagnostics, treatment tactics. Types of operative treatment. Chronic forms of osteomyelitis, their treatment.	
31	Preparation for practical class 31. Acute specific surgical infection. Tetanus Diphtheria of wounds. Anthrax. Etiology, pathogenesis. Clinic. Diagnostic methods. Treatment.	1
32	Preparation for practical class 32. Acute non-specific surgical infection. Gas gangrene. Putrid infection. Etiology, pathogenesis, clinical picture, diagnosis, treatment.	1
33	Preparation for practical class 33. General purulent infection (sepsis). Endogenous intoxication during acute surgical infection. Modern provisions of the concept of sepsis. Classification. Pathogenetic features of the course. Modern diagnostic methods. Principles of treatment. Endogenous intoxication during surgical infection. Methods of detoxification and immunocorrection. Surgical aspects of AIDS and drug addiction.	1
34	Preparation for practical class 34. Pleurisy. Peritonitis. Pleurisy. Classification. Etiology. Clinic. Diagnostics. Principles of treatment.	1
35	Preparation for practical class 35. Tumors Classification, clinical groups. International classification. Differential diagnosis of malignant and benign growth. Clinical picture. Modern methods of diagnosis and treatment. Peculiarities of surgical intervention in the context of an incurable disease, indications. Concept of palliative surgery .	1
36	Preparation for practical class 36. Acute and chronic disorders of arterial, venous blood circulation and lymph circulation. Necrosis. Gangrene. Ulcers. Fistula. Foreign objects. Acute and chronic disorders of arterial, venous blood circulation and lymph circulation. Death, gangrene, fistula, ulcer. Types, etiology, clinic, differential diagnosis, principles of treatment. Clinic of foreign bodies of various localization, first aid.	1
37	Preparation for practical class 37. Methods of examination and curation of surgical patients. Structure of medical history. Methodology of examination of patients. Modern laboratory, instrumental and hardware research methods. Complete examination of the patient. Formulation of the diagnosis. Purpose of treatment.	2
38	Preparation for practical class 38. Curation of surgical patients. Clinical examination of the patient. Collection of complaints, medical history, life history. Conducting an objective examination of the patient: examination, palpation, percussion, auscultation. Justification of the previous diagnosis. Appointment of laboratory, instrumental and hardware research methods, their analysis. Justification of the method of treatment. Observation of the patient. Completion of educational medical history.	2
39	Preparation for practical class 39. Curation of surgical patients. Defense of educational medical history.	2
40	Preparation for differentiated credit	4
<b>Together</b>		<b>50</b>

## 7. Teaching methods

**Lecture classes:** conversation, presentations, video recordings of lectures.

**Practical classes:** conversation, solving clinical situational problems, demonstration and practice of manipulation skills according to list 5, instruction and practice of skills on simulation dummies.  
**Independent work:** independent work with the textbook, independent solution of clinical tasks.

### **8. Forms of control and assessment methods (including criteria for evaluating learning outcomes)**

**Current control:** oral survey, testing, assessment of performance of practical skills, solution of situational clinical tasks, assessment of activity in class.

**Final control:** differentiated credit.

**The structure of the current evaluation in the practical lesson :**

1. Evaluation of theoretical knowledge on the subject of the lesson:
  - methods: survey, solving a situational clinical problem;
  - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2 .
2. Evaluation of practical skills and manipulations on the subject of the lesson:
  - methods: assessment of the correctness of the performance of practical skills
  - the maximum score is 5, the minimum score is 3, the unsatisfactory score is 2 .

#### **Current evaluation criteria in practical training**

Rating	Evaluation criteria
"5"	The applicant is fluent in the material, takes an active part in discussing and solving a situational clinical problem, confidently demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
"4"	The applicant has a good command of the material, participates in the discussion and solution of a situational clinical problem, demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data with some errors, expresses his opinion on the subject of the lesson, demonstrates clinical thinking.
"3"	The applicant does not have sufficient knowledge of the material, is unsure of participating in the discussion and solution of a situational clinical problem, demonstrates practical skills and interpretations of clinical, laboratory and instrumental research data with significant errors.
"2"	The applicant does not possess the material, does not participate in the discussion and solution of the situational clinical problem, does not demonstrate practical skills and interpretation of clinical, laboratory and instrumental research data.

Only those applicants who have fulfilled the requirements of the training program in the discipline, have no academic debt and their average score for the current educational activity in the discipline is at least 3.00 are admitted to the final control in the form of a differentiated credit.

#### **Evaluation of learning results during the final control-differentiated credit**

The content of the evaluated activity	Scores
Answers to theoretical questions.	3
Demonstration of practical skills.	2

#### **Criteria for evaluating the results of education of students on differentiated credit**

Rating	Evaluation criteria
Perfectly	The student answered the questions correctly, accurately and completely. G knows the content of theoretical issues thoroughly and comprehensively, is



	fluent in professional and scientific terminology. Thinks logically and constructs an answer, freely uses acquired theoretical knowledge when analyzing practical tasks. Correctly demonstrated the performance of practical skills, strictly followed the algorithm of their performance.
Fine	The student answers the questions correctly and sufficiently completely. He knows the content of theoretical issues deeply and comprehensively, and has professional and scientific terminology. Thinks logically and constructs an answer, illustrates acquired theoretical knowledge while analyzing practical tasks. But when teaching some questions, it lacks sufficient depth and argumentation, makes insignificant mistakes, which are eliminated by the applicant himself. Correctly demonstrated the performance of practical skills, made minor errors in the algorithm and skill performance technique.
Satisfactorily	The student of education gave incomplete answers, the additional and leading questions have a vague, vague character. Possesses a basic amount of theoretical knowledge, uses professional and scientific terminology inaccurately. Experiences significant difficulties in constructing an independent logical answer, in applying theoretical knowledge in the analysis of practical tasks. There are significant errors in the answers. When demonstrating a practical skill, significant errors were made in the algorithm and skill performance technique.
Unsatisfactorily	The student did not answer the main, additional and guiding questions. He did not master the basic amount of theoretical knowledge, he showed a low level of mastery of professional and scientific terminology. Answers to questions are fragmentary, inconsistent, illogical, cannot apply theoretical knowledge when analyzing practical tasks. There are a significant number of gross errors in the answers. Did not demonstrate or made gross errors and mistakes in the algorithm and technique of performing practical skills.

### 9. Distribution of points received by students of higher education

The obtained average score for the academic discipline for applicants who have successfully mastered the work program of the academic discipline is converted from a traditional four-point scale to points on a 200-point scale, as shown in the table:

**Table of conversion of traditional assessment to multi-point assessment**

National grade for discipline	The sum of points for the discipline
Excellent ("5")	185 - 200
Good ("4")	151 - 184
Satisfactory ("3")	120-150
Unsatisfactory ("2")	Below 120

Multi-point scale (200-point scale) characterizes the actual success rate of each applicant in mastering the educational component. The conversion of the traditional grade (average score for the academic discipline) into a 200-point grade is performed by the information and technical department of the University.

According to the obtained points on a 200-point scale, the achievements of the applicants are evaluated according to the ECTS rating scale. Further ranking according to the ECTS rating scale allows you to evaluate the achievements of students from the educational component who are studying in the same course of the same specialty, according to the points they received.

The ECTS scale is a relative-comparative rating, which establishes the applicant's belonging to the group of better or worse among the reference group of fellow students (faculty, specialty). An "A" grade on the ECTS scale cannot be equal to an "excellent" grade, a "B" grade to a "good" grade, etc. When converting from a multi-point scale, the limits of grades "A", "B", "C", "D", "E" according

to the ECTS scale do not coincide with the limits of grades "5", "4", "3" according to the traditional scale. Getters who have received grades "FX" and "F" ("2") are not included in the list of ranked getters . The grade "FX" is awarded to students who have obtained the minimum number of points for the current learning activity, but who have not passed the final examination. A grade of "F" is given to students who have attended all classes in the discipline, but have not achieved a grade point average (3.00) for the current academic activity and are not admitted to the final examination.

Applicants who study in one course (one specialty), based on the number of points scored in the discipline, are ranked on the ECTS scale as follows:

**Conversion of the traditional grade from the discipline and the sum of points on the ECTS scale**

Evaluation on the ECTS scale	Statistical indicator
A	Top 10% achievers
B	The next 25% of earners
C	The next 30% of earners
D	The next 25% of earners
E	The next 10% of earners

**10. Methodological support**

- Curriculum of the academic discipline
- Syllabus of the academic discipline
- Situational clinical tasks
- Methodical development of practical classes

**11. Questions for preparing for the final inspection**

1. M.I. Pirogov, his role in the development of domestic surgery.
2. Development of surgery in Ukraine. Merits of domestic scientists.
3. Desmurgia. Development of desmurgy. Materials used in desmurgy.
4. The main types of bandages.
5. Bandaging rules.
6. Antiseptic. The essence of the method, the main types (mechanical, physical, chemical, biological antiseptics).
7. Nosocomial infection, ways of spreading and its prevention.
8. Asepsis. History of development, definitions, methods.
9. Classification and requirements for suture material.
10. Methods of sterilization of suture material.
11. Methods of preparing the surgeon's hands for surgery.
12. Methods of preparing the operating field.
13. Surgical operation. Classification depending on the term and volume of execution.
14. Preoperative period. Definition, main tasks.
15. Postoperative period. Definitions, problems.
16. Bleeding, causes, types, diagnosis.
17. Temporary methods of stopping bleeding.
18. Final methods of stopping bleeding.
19. Blood loss, classification by degree of severity, principles of treatment.
20. Doctrine of blood groups, Rh factor.
21. Methods and methods of transfusion of blood and blood substitutes.
22. Determination of blood group and Rh factor.
23. Tests for blood compatibility during hemotransfusion.
24. Complications of blood transfusion and their prevention.

25. Blood substitutes, their classification, indications for use.
26. The main stages of the development of anesthesiology.
27. Local anesthesia. Indications, contraindications.
28. Methods of local anesthesia, novocaine blockades.
29. General anesthesia, definitions, theories of origin.
30. Stages of anesthesia.
31. Terminal states.
32. Basic principles of resuscitation.
33. Classification of wounds, clinical signs.
34. Physical, clinical and biochemical changes in the wound. Pathogenesis of the wound process.
35. Phases (stages) of the wound process.
36. Primary surgical treatment of the wound.
37. Infectious complications of the wound.
38. Treatment of purulent wounds depending on the phase of the wound process.
39. Contusion, sprain, rupture of soft tissues. Clinic, treatment.
40. Traumatic shock. Theories and modern views. Clinic, diagnosis, treatment.
41. Fractures. Classification, clinic, diagnosis.
42. First aid for fractures. Immobilization, transportation.
43. Basic principles of fracture treatment.
44. Dislocations. Mechanism of occurrence. Methods of treatment.
45. Syndrome of prolonged compression. Clinic, treatment.
46. Burns, classification depending on the degree of damage.
47. Burn disease, periods, clinical diagnosis, treatment.
48. General principles of burn treatment.
49. Characteristics of chemical burns.
50. Electric trauma, features of impact on the human body. First aid in case of electric current.
51. Frostbite, classification, clinic, treatment.
52. Furuncle, furunculosis. Etiology, pathogenesis, clinic, treatment.
53. Carbuncle, etiology, pathogenesis, diagnosis, treatment.
54. Abscess. Etiology, clinic, treatment. Phlegmon, clinic, diagnosis, treatment.
55. Hidradenitis, clinic, treatment.
56. Lymphangitis, lymphadenitis. Causes, clinic, diagnosis.
57. Mastitis. Causes, clinic, diagnosis, treatment, prevention.
58. Erysipelas. Etiology, pathogenesis, clinic, treatment.
59. Paraproctitis. Clinic, diagnosis, treatment.
60. Paronychia. Etiology, pathogenesis, clinic, diagnosis, treatment. Phlegmons of the hand. Clinic, diagnosis, treatment.
61. Acute hematogenous osteomyelitis. Etiology, pathogenesis, clinic, diagnosis, treatment.
62. Sepsis, classification, clinic, diagnosis, treatment.
63. Tetanus. Etiology, classification, clinic, diagnosis, treatment.
64. Planned and emergency prevention of tetanus.
65. Anaerobic infection, gas gangrene, gas phlegmon. Etiology, pathogenesis, clinic, treatment.
66. Primary chronic forms of osteomyelitis (Ollier, Brody, Garre), clinic, diagnosis, treatment.
67. Bone-joint tuberculosis. Pathological anatomy, clinical forms, treatment.
68. Causes and types of tissue necrosis.
69. Dry and wet gangrene. Clinic, diagnosis, treatment.
70. Trophic ulcers. Causes, features of the clinical course. Clinic, diagnosis, treatment.
71. Fistulae. Etiology, classification, diagnosis, treatment.
72. Bedsores. Mechanism of occurrence. Treatment, prevention.
73. Obliterative endarteritis and obliterating atherosclerosis. Clinic, diagnosis, treatment.
74. Chronic violation of venous blood circulation.
75. Tumors. Etiology, pathogenesis. Classification according to TNMR.

76. General principles of tumor treatment.
77. Anomalies of development.
78. Plastic or restorative surgery
79. Surgical parasitic diseases
80. Transplantology. History of development. Deontological aspects of transplantology. Peculiarities of organ, tissue and cell transplantation, indications and contraindications for transplantation, methods of donor and recipient selection, legal and legal aspects of transplantation.
81. Features surgical intervention in context incurable diseases, screenings . Concept palliative surgery.
82. Surgical problem of AIDS. Occupational risk of infection with blood-borne infections and measures to reduce it. Post-contact prevention.

## 12. Recommended literature

### Main:

1. General Surgery. Textbook for students of higher medical edukational establishments / [ Lihonenko O.V., Zubaha A.B., Khimich S.D et al.]; Edited by Prof. S.D. Khimich, Prof. M.D. Zheliba / Kyiv AUS Medicine Publishing, 2019.- 608 p.
2. General Surgery. Textbook for students of higher medical educational establishments / [ Lihonenko O.V., Chorna I.O. et al.]; Edited by Prof. Ja.S.Bereznickij, M.P.Zacharash, M.P.Mishalov,/ - Vinnica: New book- 2019. -344c
3. R.Kushnir. Lecture of General surgery for foreign students of II and III years of medical faculty. –Ternopil “Ukrmedkniga”,2018 – 318 p
4. Lyapis M. A. Methods of examination of a surgical patient / M. A. Lyapis. – Ternopil: Ukrmedbook, 2004. – 156 p.

1. Загальна хірургія: підручник / С. Д. Хіміч, М. Д. Желіба, , І. Г. Герич та ін.: за ред. професорів С. Д. Хіміча, М.Д. Желіби,. – К.: ВСВ «Медицина», 2018. – 608 с.
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### **13. Electronic information resources**

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3. [www.who.int](http://www.who.int) - World Health Organization
4. [www.dec.gov.ua/mtd/home/](http://www.dec.gov.ua/mtd/home/) - State Expert Center of the Ministry of Health of Ukraine
5. <http://bma.org.uk> - British Medical Association
6. <http://iss-sic.com/> - International Society of Surgeons