

MINISTRY OF HEALTH PROTECTION OF UKRAINE

ODESSA NATIONAL MEDICAL UNIVERSITY

Department of General and Military Surgery

I APPROVE



Vice-rector for scientific and pedagogical work

Eduard BURYACHKOVSKY

September 1, 2023

CURRICULUM ON EDUCATIONAL DISCIPLINE

"First pre-medical aid with introductory medical practice"

Level of higher education: second (master's degree)

Field of knowledge: 22 "Health care"


Specialty: 226 "Pharmacy, industrial pharmacy"


Educational and professional program: Pharmacy

The curriculum is compiled on the basis of the educational and professional program "Pharmacy" for the training of specialists of the second (master's) level of higher education in the specialty 226 "Pharmacy, industrial pharmacy" of the field of knowledge 22 "Health care", approved by the Scientific Council of the ONMedU (protocol No. 8 of 29 June, 2023).

Developers: MD, Prof. M.A. Kashtalyan., Ph.D., Kolotvin A.O., Ph.D. Romak O.I., Assistant Bilash O.V.

The program was discussed at the meeting of the department of general and military surgery
Protocol No. 1 dated August 28, 2023.

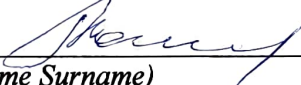
Head of the department  Mykhailo KASHTALYAN

Agreed with the guarantor of the EPP  Liana UNGURYAN

The program was approved at the meeting of the subject cycle commission for surgical disciplines of the ONMedU
Protocol No. 1 dated 08/30/2023.

The head of the subject cycle methodical
Committee on Surgical Disciplines  Vasyl Myshchenko

Reviewed and approved at the meeting of the department general, pediatric's and
Protocol No. 1 of "04" 09 2023 military surgery with course of
urology

Head of Department  Mykhailo KASHTALYAN
(signature) (First Name Surname)

Reviewed and approved at the meeting of the department _____
Protocol No. ___ of "___" _____ 20__

1. Description of the academic discipline:

Name of indicators	Field of knowledge, specialty, specialization, level of higher education	Characteristics of the academic discipline
The total number of: Credits: 3 Hours: 90 Content modules: 4	Branch of knowledge 22 "Health care" Specialty 226 "Pharmacy, industrial pharmacy" Level of higher education second (master's)	<i>Full-time education</i>
		<i>Mandatory discipline</i>
		<i>Year of training: 2</i>
		<i>Semesters III-IV</i>
		<i>Lectures 10 hours.</i>
		<i>Seminars (0 hours)</i>
		<i>Practical 40 hours</i>
		<i>Laboratory (0 hours)</i>
		<i>Independent work 40 hours</i>
	<i>including individual tasks (0 hours)</i>	
	<i>Final control form - credit</i>	

2. The purpose and tasks of the educational discipline, competences, program learning outcomes.

Purpose: Mastering the basic theoretical principles of first aid by the student of higher education, mastering the practical skills of providing emergency aid to victims at the scene of the incident and during transportation to a medical facility.

Task:

1. Formation of skills and abilities: for carrying out cardiopulmonary resuscitation, stopping bleeding, using report cards and improvised tires for transport immobilization of victims in order to save their lives.
2. Mastery of skills: cardiopulmonary resuscitation, temporary stoppage of bleeding, application of bandages, report cards and improvised splints.
3. Mastering the skills: to determine the tactics of emergency medical care for wounds, injuries, acute therapeutic pathology, acute surgical diseases, emergency conditions in pregnant women and children.

The process of studying the discipline is aimed at forming elements of the following competencies:

Master's integral competence (level 7) according to the requirements of the NQF

The ability to solve typical and complex specialized problems and to critically consider and solve practical problems in professional pharmaceutical and/or research and innovation activities using the provisions, theories and methods of fundamental, chemical, technological, biomedical and socio-economic sciences; integrate knowledge and solve complex issues, formulate judgments based on insufficient or limited information; clearly and unambiguously convey one's own knowledge, conclusions and their validity to a professional and non-professional audience. Ability to continue learning with a high degree of autonomy.

General competences according to the requirements of the NQF:

- GC01. Ability to think abstractly, analyze and synthesize, learn and be modernly educated.
- GC02. Knowledge and understanding of the subject area and understanding of professional activity.
- GC06. Ability to work in a team.
- GC11. Ability to apply knowledge in practical situations.
- GC13. Ability to show initiative and entrepreneurship.
- GC15. Knowledge and understanding of the subject area and understanding

professional activity.

Special (professional, subject) competences:

SC07. The ability to carry out sanitary and educational work among the population for the purpose of prevention of common diseases, prevention of dangerous infectious, viral and parasitic diseases, as well as for the purpose of promoting timely detection and support of adherence to the treatment of these diseases according to their medico-biological characteristics and microbiological features.

SC08. The ability to consult on prescription and non-prescription drugs and other products of the pharmacy assortment; pharmaceutical care during the selection and sale of medicinal products of natural and synthetic origin by assessing the risk/benefit ratio, compatibility, taking into account biopharmaceutical, pharmacokinetic, pharmacodynamic and physicochemical and chemical features, indications/contraindications for use guided by data on the health status of a particular patient.

SC24. Ability to use knowledge of regulatory and legislative acts of Ukraine and recommendations of proper pharmaceutical practices in professional activity.

Program learning outcomes (PRL):

PRL01. Have and apply specialized conceptual knowledge in the field of pharmacy and related fields, taking into account modern scientific achievements.

PRL12. Provide pre-medical assistance to patients in emergency situations and victims in extreme situations.

PRL25. Adhere to the norms of the sanitary and hygienic regime and the requirements of safety equipment when carrying out professional activities.

PRL41. To determine the main clinical syndrome or symptom, which determines the severity of the victim's/victim's condition by making a reasoned decision about the person's condition under any circumstances (in the conditions of a health care facility, outside its borders), including in conditions of emergency and hostilities, in field conditions, in conditions of lack of information and limited time.

PRL42. To organize the provision of medical aid and medical evacuation measures to the population and military personnel in emergency situations and hostilities, including in field conditions.

As a result of studying the academic discipline, the student of higher education must:

Know:

1. Algorithms for temporary stopping of bleeding.
2. Cardiopulmonary resuscitation algorithm.
3. Algorithm of pre-medical care for asphyxia.
4. Algorithm for performing cricothyropuncture.
5. Algorithm of first aid for poisoning and drug overdose.
6. First aid algorithm for thermal burns.
7. First aid algorithm for chemical burns.
8. First aid algorithm for frostbite.
9. Action algorithm for animal bites.
10. Algorithms of pre-medical care for fractures.
11. Algorithm of actions for dislocations.
12. First aid algorithm for gunshot and knife wounds.
13. Immediate actions in case of allergic reactions.
14. Action algorithm for infectious diseases, organization of quarantine.
15. Pre-medical care for angina pectoris, myocardial infarction.
16. First aid algorithm for bronchial asthma.
17. Tactics for abdominal pain.
18. First aid algorithm for hyperthermia.
19. Algorithms of first pre-medical aid for emergency conditions in children.
20. Stages of physiological childbirth, processing of the umbilical cord.
21. Actions for insect bites.
22. First aid algorithm for positional compression syndrome.

Be able:

1. Apply improvised and standard splints for immobilization.
2. Evacuate the victim from the car.

3. Transport victims with various types of injuries.
4. Apply bandages.
5. Wash the stomach.
6. Wash the eyes.
7. Treat wounds.

3. Content of the academic discipline

First pre-medical aid with introductory medical practice

Content module 1. Basic principles of first aid.

Topic 1. The importance of first aid.

General principles and logic of providing first aid in peacetime, wartime and mass casualties. Principles of medical sorting. Diagnostic and treatment algorithms. Typical mistakes.

Topic 2. General principles and sequence of providing first aid.

Manipulations and medications – their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.

Topic 3. Desmurgia.

Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, pressing, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.

Topic 4. Asepsis and antiseptics.

Preservation of the principles of asepsis and antiseptics when providing first aid. Ways of spread of infection. Prevention of the spread of exogenous and endogenous infection. Disinfection. Sterilization. Mechanical, physical, chemical, biological and mixed antiseptics.

Content module 2. Wounds. Bleeding, blood loss. Basics of hemotransfusiology.

Topic 5. Wounds. Concept. Wound assessment methodology (neurovascular component, area and depth of tissue loss, degree of contamination, localization). First aid for various types of wounds. Bite wounds - treatment principles, registration and observation rules. Prevention of gas gangrene, tetanus and rabies. Crash syndrome: causes, manifestations, dangers, first aid tactics.

Topic 6. Bleeding. Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.

Topic 7. Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.

Content module 3. Trauma and damage.

Topic 8. First aid for injuries.

Immediate actions at the place of injury. Sequence of care for mass lesions. Rules for evacuation of victims. Methods of immobilization, transportation. Typical mistakes.

Topic 9. Bone fracture.

Diagnostics and first aid. Sequence of medical actions for complicated fractures. Diagnosis of dislocations, first aid, traumatic amputations: first aid. Closed injuries of soft tissues: classification, diagnosis, first aid.

Topic 10. Head and spine injury.

Head injury: mechanism of injury. Methods of examination of the injured. Assessment of the importance of head trauma: history, mechanism, vital signs, Glasgow scale, physical examination. Diagnostic signs of different types of trauma. Tactics of emergency care: Primary examination, immobilization, transportation, secondary examination. First aid mistakes. Spinal injury: Mechanism of injury. Methodology of examination of the spine. Spinal shock, tetraplegia and paraplegia. Tactics of emergency care: primary examination, immobilization, transportation, secondary examination. Dynamic observation. First aid mistakes.

Topic 11. Injury of the chest, abdomen and pelvis.

Chest injuries: mechanism of injury. Methodology of examination of chest organs. Open, closed and valvular pneumothorax, massive hemothorax, cardiac tamponade, bulging chest, heart injury, airway obstruction. Principles of hospital care. First aid mistakes. Injuries of organs of the abdominal cavity and pelvis: mechanism of injury. Examination methodology. Complications that are life-threatening (intra-abdominal bleeding, peritonitis, evisceration).

Topic 12. Burns, frostbite, electric shock.

Methods of examination of burned people (determination of depth, area, severity of burn). Principles of resuscitation and providing first aid to burned and electrocuted victims. Inhalation injuries: diagnosis and first aid. Chemical, radiation and radiation burns: features of diagnosis and first aid.

Content module 4. First medical aid for acute surgical and therapeutic diseases. Logic of actions in emergency obstetric conditions, first aid for acute conditions in children.

Topic 13. Poisoning. Conditions, classification, dangers.

Assessment of the patient's condition – respiratory function, cardiovascular system, consciousness, collection of necessary information. Mushroom poisoning. First aid for poisoning: gastric lavage technique, antidotes, sorbents, some medical preparations. Bites of poisonous animals and insects: first aid. Care of a patient who has suffered poisoning.

Topic 14. Acute "therapeutic" diseases of the organs of the cardiovascular and respiratory systems.

Myocardial infarction, acute cardiovascular failure, cardiogenic shock, arrhythmia, hypertensive crisis. An attack of bronchial asthma. Principles of diagnostics and first aid. Allergy, anaphylaxis, allergens. Clinical manifestations and variants of the course (lightning, asthmatic, cardiac, neurological, abdominal, skin). Pulmonary edema. Quincke's edema. First aid.

Topic 15. Shock. Collapse. Coma.

Loss of consciousness, shock, collapse, coma: Definition, etiology, assessment of the patient's condition (initial examination, medical history, physical examination). Pre-hospital care for insects of unclear etiology: head injuries, diabetes (hypoglycemia, hyperglycemia, ketoacidosis), cardiovascular diseases (cardiogenic shock, arrhythmias), convulsions (epilepsy), stroke, hypo- and hyperthermia, anaphylaxis (medicines, insect bites, products), poisoning (ingestion, carbon monoxide).

Topic 16. Logic of actions in urgent obstetric conditions, first medical aid in acute conditions in children. Typical mistakes.

Anatomical and physiological features of pregnant women. Pregnancy. Bleeding, Preeclampsia, eclampsia, uterine rupture, placental abruption, umbilical cord prolapse, threat of abortion, ectopic pregnancy, trauma - recognition, first aid. Transportation of pregnant women. Childbirth. Neonatal resuscitation. Physiology of childbirth. Harbinger of childbirth, Stages and mechanism of childbirth. Acceptance of normal spontaneous childbirth: financial support, treatment of the umbilical cord and the child. Anatomical and physiological features of children. Airway obstruction, asthma, epiglottitis, croup, bronchitis, fibrillary convulsions, hyperthermia - diagnosis and first aid. Peculiarities of resuscitation of children.

Topic 17. "Acute abdomen."

Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes,

manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.

Test.

4. The structure of the academic discipline

Names of topics	Number of hours					
	In total	Including				
		Lectures	Seminars	Practical	Laboratory	IWS
<i>Content module 1. Basic principles of first aid</i>						
Topic 1. The importance of first aid. General principles and logic of providing first aid in peacetime, wartime and mass casualties. Principles of medical sorting. Diagnostic and treatment algorithms. Typical mistakes.	2	2	0	0	0	0
Topic 2. General principles and sequence of providing first aid. Manipulations and medications – their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.	6	2	0	2	0	2
Topic 3. Desmurgia. Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, compression and, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.	7	0	0	4	0	3
Topic 4. Asepsis and antiseptics. Preservation of the principles of asepsis and antiseptics when providing first aid. Ways of spread of	4	0	0	2	0	2

infection..Prevention of the spread of exogenous and endogenous infection. Disinfection. Sterilization. Mechanical, physical, chemical, biological and mixed antiseptics.						
<i>Together according to content module 1</i>	19	4	0	8	0	7
Content module 2. Wounds. Bleeding, blood loss. Basics of hemotransfusiology.						
Topic 5. Wounds. Concept. Wound assessment methodology (neurovascular component, area and depth of tissue loss, degree of contamination, localization). First aid for various types of wounds. Bite wounds - treatment principles, registration and observation rules. Prevention of gas gangrene, tetanus and rabies. Crash syndrome: causes, manifestations, dangers, first aid tactics.	4	0	0	2	0	2
Topic 6. Bleeding. Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.	9	2	0	4	0	3
Topic 7. Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.	8	0	0	4	0	4

<i>Together according to content module 2</i>	23	2	0	12	0	9
Content module 3. Trauma and damage.						
Topic 8. First aid for injuries. Immediate actions at the place of injury. Sequence of care for mass lesions. Rules for evacuation of victims. Methods of immobilization, transportation. Typical mistakes.	2	2	0	0	0	0
Topic 9. Bone fracture. Diagnostics and first aid. Sequence of medical actions for complicated fractures. Diagnosis of dislocations, first aid, traumatic amputations: first aid. Closed injuries of soft tissues: classification, diagnosis, first aid.	4	0	0	2	0	2
Topic 10. Head and spine injury. Head injury: mechanism of injury. Methods of examination of the injured. Assessment of the importance of head trauma: history, mechanism, vital signs, Glasgow scale, physical examination. Diagnostic signs of different types of trauma. Tactics of emergency care: Primary examination, immobilization, transportation, secondary examination. First aid mistakes. Spinal injury: Mechanism of injury. Methodology of examination of the spine. Spinal shock, tetraplegia and paraplegia. Tactics of emergency care: primary examination, immobilization, transportation, secondary examination.	0	0	0	2	0	2
Topic 11. Injury of the chest, abdomen and pelvis. Chest injuries: mechanism	0	0	0	2	0	2

of injury. Methodology of examination of chest organs. Open, closed and valvular pneumothorax, massive hemothorax, cardiac tamponade, bulging chest, heart injury, airway obstruction. Principles of hospital care. First aid mistakes. Injuries of organs of the abdominal cavity and pelvis: mechanism of injury. Examination methodology. Complications that are life-threatening (intra-abdominal bleeding, peritonitis, evisceration).						
Topic 12. Burns, frostbite, electric shock. Methods of examination of burned people (determination of depth, area, severity of burn). Principles of resuscitation and providing first aid to burned and electrocuted victims. Inhalation injuries: diagnosis and first aid. Chemical, radiation and radiation burns: features of diagnosis and first aid.	0	0	0	2	0	2
<i>Together according to content module 3</i>	18	2	0	8	0	8
<i>Content module 4. First medical aid for acute surgical and therapeutic diseases. Logic of actions in emergency obstetric conditions, first aid for acute conditions in children.</i>						
Topic 13. Poisoning. Conditions, classification, dangers. Assessment of the patient's condition – respiratory function, cardiovascular system, consciousness, collection of necessary information. Mushroom poisoning. First aid for poisoning: gastric lavage technique, antidotes, sorbents, some medical preparations. Bites of poisonous animals and insects: first aid. Care of a patient who has suffered poisoning.	4	0	0	2	0	2

<p>Topic 14. Acute "therapeutic" diseases of the organs of the cardiovascular and respiratory systems. Myocardial infarction, acute cardiovascular failure, cardiogenic shock, arrhythmia, hypertensive crisis. An attack of bronchial asthma. Principles of diagnostics and first aid. Allergy, anaphylaxis, allergens. Clinical manifestations and variants of the course (rapid, asthmatic, cardiac, neurological, abdominal, skin). Pulmonary edema. Quincke's edema. First aid.</p>	4.5	0.5		2		2
<p>Topic 15. Shock. Collapse. Coma. Loss of consciousness, shock, collapse, coma: Definition, etiology, assessment of the patient's condition (initial examination, medical history, physical examination): Pre-hospital care for insects of unclear etiology: head injuries, diabetes (hypoglycemia, hyperglycemia, ketoacidosis), cardiovascular diseases (cardiogenic shock, arrhythmias), convulsions (epilepsy), stroke, hypo- and hyperthermia, anaphylaxis (medicines, insect bites, products), poisoning (ingestion, carbon monoxide).</p>	4	0	0	2	0	2
<p>Topic 16. Logic of actions in urgent obstetric conditions, first medical aid in acute conditions in children. Typical mistakes. Anatomical and physiological features of pregnant women. Pregnancy. Bleeding, Preeclampsia, eclampsia,</p>	4.5	0.5	0	2	0	2

uterine rupture, placental abruption, umbilical cord prolapse, threat of abortion, ectopic pregnancy, trauma - recognition, first aid. Transportation of pregnant women. Childbirth. Neonatal resuscitation. Physiology of childbirth. Harbinger of childbirth, Stages and mechanism of childbirth. Acceptance of normal spontaneous childbirth: financial support, treatment of the umbilical cord and the child. Anatomical and physiological features of children. Airway obstruction, asthma, epiglottitis, croup, bronchitis, fibrillary convulsions, hyperthermia - diagnosis and first aid. Peculiarities of resuscitation of children.						
Topic 17. "Acute abdomen." Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes, manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.	9	1	0	4	0	4
<i>Together according to content module 4</i>	26	2	0	12	0	12
Test.	6	0	0	2	0	4
Together:	90	2	0	40	0	40

5. Topics of lectures / seminars / practical / laboratory classes

5.1. Topics of lectures

No	Topic name	Number of hours
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1	Introductory lecture. The importance of first aid. General principles and logic of providing first aid in peacetime, wartime and mass casualties. Principles of medical sorting. Diagnostic and treatment algorithms. Typical mistakes.	2
2	General principles and sequence of providing first aid. Manipulations and medications – their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.	2
3	First aid for injuries. Immediate actions at the place of injury. Sequence of care for mass lesions. Rules for evacuation of victims. Methods of immobilization, transportation. Typical mistakes.	2
4	Bleeding: classification, clinic, diagnosis, methods and means of temporary and permanent stopping.	2
5	First medical aid for acute surgical and therapeutic diseases. Logic of actions in emergency obstetric conditions, first aid for acute conditions in children. Typical mistakes.	2
	Together	10

5.2. Topics of seminar classes

Seminar classes are not provided.

5.3. Topics of practical classes

No	Topic name	Number of hours
1	Topic 2. Practical class 1. General principles and sequence of providing first aid. Manipulations and medications – their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.	2
2	Topic 3. Practical class 2. Desmurgia. Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, pressing, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.	2
3	Topic 3. Practical class 3. Desmurgia. Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, pressing, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.	2
4	Topic 4. Practical class 4. Asepsis and antiseptics. Preservation of the principles of asepsis and antiseptics when providing first aid. Ways of spread of infection. Prevention of the spread of exogenous and endogenous infection. Disinfection. Sterilization. Mechanical, physical, chemical, biological and mixed antiseptics.	2
5	Topic 5. Practical class 5. Wounds Concept. Wound assessment methodology (neurovascular component, area and depth of tissue loss, degree of contamination, localization). First aid for various types of wounds. Bite wounds - treatment principles, registration and observation rules. Prevention of gas gangrene, tetanus and rabies. Crash syndrome: causes, manifestations, dangers, first aid tactics.	2

6	Topic 6. Practical class 6. Bleeding Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.	2
7	Topic 6. Practical class 7. Bleeding Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.	2
8	Topic 7. Practical class 8. Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.	2
9	Topic 7. Practical class 9. Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.	2
10	Topic 9. Practical class 10. Bone fractures. Diagnostics and first aid. Sequence of medical actions for complicated fractures. Diagnosis of dislocations, first aid, traumatic amputations: first aid. Closed injuries of soft tissues: classification, diagnosis, first aid.	2
11	Topic 10. Practical class 11. Head and spine injury. Head injury: mechanism of injury. Methods of examination of the injured. Assessment of the importance of head trauma: history, mechanism, vital signs, Glasgow scale, physical examination. Diagnostic signs of different types of trauma. Tactics of emergency care: Primary examination, immobilization, transportation, secondary examination. First aid mistakes. Spinal injury: Mechanism of injury. Methodology of examination of the spine. Spinal shock, tetraplegia and paraplegia. Tactics of emergency care: primary examination, immobilization, transportation, secondary examination.	2
12	Topic 11. Practical class 12. Injury to the chest, abdomen and pelvis. Chest injuries: mechanism of injury. Methodology of examination of chest organs. Open, closed and valvular pneumothorax, massive hemothorax, cardiac tamponade, bulging chest, heart injury, airway obstruction. Principles of hospital care. First aid mistakes. Injuries of organs of the abdominal cavity and pelvis: mechanism of injury. Examination methodology. Complications that are life-threatening (intra-abdominal bleeding, peritonitis, evisceration).	2
13	Topic 12. Practical class 13. Burns, frostbite, electric shock. Methods of examination of burned people (determination of depth, area, severity of burn). Principles of resuscitation and providing first aid to burned and electrocuted victims. Inhalation injuries: diagnosis and first aid. Chemical, radiation and radiation burns: features of diagnosis and first aid.	2

14	<p>Topic 13. Practical class 14.</p> <p>Poisoning. Conditions, classification, dangers.</p> <p>Assessment of the patient's condition – respiratory function, cardiovascular system, consciousness, collection of necessary information. Mushroom poisoning. First aid for poisoning: gastric lavage technique, antidotes, sorbents, some medical preparations. Bites of poisonous animals and insects: first aid. Care of a patient who has suffered poisoning.</p>	2
15	<p>Topic 14. Practical class 15.</p> <p>Acute "therapeutic" diseases of the organs of the cardiovascular and respiratory systems.</p> <p>Myocardial infarction, acute cardiovascular failure, cardiogenic shock, arrhythmia, hypertensive crisis. An attack of bronchial asthma. Principles of diagnostics and first aid. Allergy, anaphylaxis, allergens. Clinical manifestations and variants of the course (lightning, asthmatic, cardiac, neurological, abdominal, skin). Pulmonary edema. Quincke's edema. First aid.</p>	2
16	<p>Topic 15. Practical class 16.</p> <p>Shock. Collapse. Coma. Loss of consciousness, shock, collapse, coma: Definition, etiology, assessment of the patient's condition (initial examination, medical history, physical examination). Pre-hospital care for insects of unclear etiology: head injuries, diabetes (hypoglycemia, hyperglycemia, ketoacidosis), cardiovascular diseases (cardiogenic shock, arrhythmias), convulsions (epilepsy), stroke, hypo- and hyperthermia, anaphylaxis (medicines, insect bites, products), poisoning (ingestion, carbon monoxide).</p>	2
17	<p>Topic 16. Practical class 17.</p> <p>Logic of actions in emergency obstetric conditions, first aid for acute conditions in children. Typical mistakes.</p> <p>Anatomical and physiological features of pregnant women. Pregnancy. Bleeding, Preeclampsia, eclampsia, uterine rupture, placental abruption, umbilical cord prolapse, threat of abortion, ectopic pregnancy, trauma - recognition, first aid. Transportation of pregnant women. Childbirth. Neonatal resuscitation. Physiology of childbirth. Harbinger of childbirth, Stages and mechanism of childbirth. Acceptance of normal spontaneous childbirth: financial support, treatment of the umbilical cord and the child. Anatomical and physiological features of children. Airway obstruction, asthma, epiglottitis, croup, bronchitis, fibrillary convulsions, hyperthermia - diagnosis and first aid. Peculiarities of resuscitation of children.</p>	2
18	<p>Topic 17. Practical class 18.</p> <p>"Acute abdomen."</p> <p>Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes, manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.</p>	2
19	<p>Topic 17. Practical class 19.</p> <p>" Acute abdomen."</p> <p>Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes, manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.</p>	2
20	Test.	2
Together		40

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	Topic 2. Preparation for practical class 1 General principles and sequence of providing first aid. Manipulations and medications – their role in first aid. Fundamentals of resuscitation. Cardiopulmonary resuscitation. Terminal states. Resuscitation measures.	2
2	Topic 3. Preparation for practical class 2 Desmurgia. Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, pressing, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.	2
3	Topic 3. Preparation for practical class 3 Desmurgia. Characteristics of dressing materials. Bandages, adhesive, handkerchief, plaster. Types of bandages: protective, pressing, therapeutic, correcting. Rules and technique of applying bandages on the head and chest, abdomen. Bandages on the limbs: circular, spiral, turtle, on the finger and fingers of the hand, spike-shaped, eight-shaped on the hand, Dezo.	1
4	Topic 4. Preparation for practical class 4 Asepsis and antiseptics. Preservation of the principles of asepsis and antiseptics when providing first aid. Ways of spread of infection. Prevention of the spread of exogenous and endogenous infection. Disinfection. Sterilization. Mechanical, physical, chemical, biological and mixed antiseptics.	2
5	Topic 5. Preparation for practical class 5 Wounds Concept. Wound assessment methodology (neurovascular component, area and depth of tissue loss, degree of contamination, localization). First aid for various types of wounds. Bite wounds - treatment principles, registration and observation rules. Prevention of gas gangrene, tetanus and rabies. Crash syndrome: causes, manifestations, dangers, first aid tactics.	2
6	Topic 6. Preparation for practical class 6 Bleeding Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.	2
7	Topic 6. Preparation for practical class 7 Bleeding Definition, classification of bleeding. Ways to temporarily stop bleeding (pressing the wound, elevated position, finger pressure of projection points, splinting, applying a tourniquet, compressing bandage, applying a clamp, nasal tamponade): technique, indications, contraindications, typical errors. Rules of asepsis and antiseptics when stopping bleeding. Final methods of stopping bleeding.	1
8	Topic 7. Preparation for practical class 8 Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for	2

	internal bleeding. Transfusion of blood, blood components and blood substitutes.	
9	Topic 7. Preparation for practical class 9 Hemorrhagic shock. Concepts, causes, manifestations, Algover's index, first aid. Features, dangers and clinical signs of internal bleeding. First aid for internal bleeding. Transfusion of blood, blood components and blood substitutes.	2
10	Topic 9. Preparation for practical class 10 Bone fractures. Diagnostics and first aid. Sequence of medical actions for complicated fractures. Diagnosis of dislocations, first aid, traumatic amputations: first aid. Closed injuries of soft tissues: classification, diagnosis, first aid.	2
11	Topic 10. Preparation for practical class 11 Head and spine injury. Head injury: mechanism of injury. Methods of examination of the injured. Assessment of the importance of head trauma: history, mechanism, vital signs, Glasgow scale, physical examination. Diagnostic signs of different types of trauma. Tactics of emergency care: Primary examination, immobilization, transportation, secondary examination. First aid mistakes. Spinal injury: Mechanism of injury. Methodology of examination of the spine. Spinal shock, tetraplegia and paraplegia. Tactics of emergency care: primary examination, immobilization, transportation, secondary examination.	2
12	Topic 11. Preparation for practical class 12 Injury to the chest, abdomen and pelvis. Chest injuries: mechanism of injury. Methodology of examination of chest organs. Open, closed and valvular pneumothorax, massive hemothorax, cardiac tamponade, bulging chest, heart injury, airway obstruction. Principles of hospital care. First aid mistakes. Injuries of organs of the abdominal cavity and pelvis: mechanism of injury. Examination methodology. Complications that are life-threatening (intra-abdominal bleeding, peritonitis, evisceration).	2
13	Topic 12. Preparation for practical class 13 Burns, frostbite, electric shock. Methods of examination of burned people (determination of depth, area, severity of burn). Principles of resuscitation and providing first aid to burned and electrocuted victims. Inhalation injuries: diagnosis and first aid. Chemical, radiation and radiation burns: features of diagnosis and first aid.	2
14	Topic 13. Preparation for practical class 14 Poisoning. Conditions, classification, dangers. Assessment of the patient's condition – respiratory function, cardiovascular system, consciousness; collection of necessary information. Mushroom poisoning. First aid for poisoning: gastric lavage technique, antidotes, sorbents, some medical preparations. Bites of poisonous animals and insects: first aid. Care of a patient who has suffered poisoning.	2
15	Topic 14. Preparation for practical class 15 Acute "therapeutic" diseases of the organs of the cardiovascular and respiratory systems. Myocardial infarction, acute cardiovascular failure, cardiogenic shock, arrhythmia, hypertensive crisis. An attack of bronchial asthma. Principles of diagnostics and first aid. Allergy, anaphylaxis, allergens. Clinical manifestations and variants of the course (lightning, asthmatic, cardiac, neurological, abdominal, skin). Pulmonary edema. Quincke's edema. First aid.	2
16	Topic 15. Preparation for practical class 16	2

	Shock: Collapse. Coma. Loss of consciousness, shock, collapse, coma: Definition, etiology, assessment of the patient's condition (initial examination, medical history, physical examination). Pre-hospital care for insects of unclear etiology: head injuries, diabetes (hypoglycemia, hyperglycemia, ketoacidosis), cardiovascular diseases (cardiogenic shock, arrhythmias), convulsions (epilepsy), stroke, hypo- and hyperthermia, anaphylaxis (medicines, insect bites, products), poisoning (ingestion, carbon monoxide).	
17	Topic 16. Preparation for practical class 17 Logic of actions in emergency obstetric conditions, first aid for acute conditions in children. Typical mistakes. Anatomical and physiological features of pregnant women. Pregnancy. Bleeding, Preeclampsia, eclampsia, uterine rupture, placental abruption, umbilical cord prolapse, threat of abortion, ectopic pregnancy, trauma - recognition, first aid. Transportation of pregnant women. Childbirth. Neonatal resuscitation. Physiology of childbirth. Harbinger of childbirth, Stages and mechanism of childbirth. Acceptance of normal spontaneous childbirth: financial support, treatment of the umbilical cord and the child. Anatomical and physiological features of children. Airway obstruction, asthma, epiglottitis, croup, bronchitis, fibrillary convulsions, hyperthermia - diagnosis and first aid. Peculiarities of resuscitation of children.	2
18	Topic 17. Preparation for practical class 18 "A sharp stomach." Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes, manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.	2
19	Topic 17. Preparation for practical class 19 "A sharp stomach." Diseases united by the term "acute abdomen": acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernia, intestinal obstruction. Causes, manifestations, pre-hospital diagnosis, first aid, principles of treatment at the hospital stage. Common first aid mistakes.	2
20	Preparation for the test	4
Together		40

7. Teaching methods

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 : credit.

The structure of the current evaluation in the practical class :

1. Evaluation of theoretical knowledge on the subject of the class:
 - 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 class:
 - 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 assessment criteria for practical training:

Rating	Evaluation criteria
Perfectly "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 class, demonstrates clinical thinking.
Fine "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 class, demonstrates clinical thinking.
Satisfactorily "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.
Unsatisfactorily "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.

Credit is given to the applicant who completed all tasks of the work program of the academic discipline, took an active part in practical classes, completed and defended an individual assignment and has an average current grade of at least 3.0 and has no academic debt.

Test is carried out: at the last class before the beginning of the examination session - at ribbon system teaching, on to the last occupation - with a cyclical system of education. The credit score is the arithmetic mean of all components on a traditional four-point scale and has a value that is rounded using the statistical method with two decimal places after the decimal point.

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:

Conversion table of a traditional assessment into a multi-point scale

Traditional four-point scale	Multipoint 200-point scale
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. Acquirers who have received grades of "FX" and "F" ("2") are not included in the list of ranked acquirers. 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

- Working program 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. Technique of temporary stopping of bleeding.
2. Technique of cardiopulmonary resuscitation.
3. First aid for asphyxiation.
4. Cricothyreopuncture technique.
5. Application of improvised and standard splints for immobilization.
6. Evacuation of the victim from the car.
7. Methods of transporting victims with various types of injuries.
8. Applying bandages.
9. First aid for poisoning and drug overdose.
10. Gastric lavage.
11. Eye wash.
12. First aid for thermal burns.
13. First aid for chemical burns.
14. First aid for frostbite.
15. Treatment of wounds.
16. First aid for animal bites.
17. First aid for fractures.
18. First aid for sprains.
19. The essence of first aid for gunshot and knife wounds.

20. Immediate actions in case of allergic reactions.
21. First aid for infectious diseases, organization of quarantine.
22. Pre-medical care for angina, myocardial infarction.
23. First aid for bronchial asthma.
24. Tactics for abdominal pain.
25. First aid for hyperthermia.
26. First medical aid for a patient with acute mental disorders.
27. First medical aid for emergency conditions in children.
28. Assistance in the reception of physiological childbirth, treatment of the umbilical cord.
29. First aid for insect bites.
30. First aid for positional compression syndrome.

12. Recommended literature

Main:

1. Schneider, Andreas, Erik Popp, and Bernd W. Böttiger. "Cardiopulmonary Resuscitation." *Surgical Intensive Care Medicine*. Springer International Publishing, 2016. 153-166.
2. Gostishcev V.K. *General surgery/ The manual*. –М.:Geotar-med, 2018. 220p
3. Білоус Т. Л. *Долікарська допомога: навч. посіб.* / Т. Л. Білоус. – Суми: видавничовиробниче підприємство «Мрія», 2020. 148 с
4. *Домедична допомога на місці події : практичний посібник* / П. Б. Волянський, А. М. Гринзовський, С. О. Гур'єв та ін. ; за заг. ред. д. н. держ. упр., професора П. Б. Волянського та д. мед. н., професора С. О. Гур'єва. Херсон: Видав. дім «Гельветика», 2020. 224 с.
5. *Екстрена медична допомога : підручник* / [М. І. Швед, А. А. Гудима, С. М. Геряк та ін.] ; за ред. М. І. Шведа. – Тернопіль : ТДМУ, 2015. – 420 с.
6. Дужий І.Д. *Перша допомога при невідкладних станах : навчальний посібник* / І.Д. Дужий, О.В. Кравець ; Сумський державний університет. – Суми : Сумський державний університет, 2014. – 212 с. : іл., табл.
7. Тарасюк В.С., Матвійчук М.В. Паламар М.В., Поляруш В.В., Корольова Н.Д., Подолян В.М. Малик С.Л., Кривецька Н.В. *Перша медична (екстрена) допомога з елементами тактичної медицини на догоспітальному етапі в умовах надзвичайних ситуацій*. – К.: Медицина, 2015.

Additional:

1. Donald C. Correll, MD Facer. *Hypothermia practice Guid // The physician assistant practice Guide. For Emergency Departments urgent care centers, and family practices*. Acuta care Horizons. Jackson, TN.2012.
2. Marx, John, Ron Walls, and Robert Hockberger. *Rosen's emergency medicine-concepts and clinical practice*. Elsevier Health Sciences, 2013.
3. Skone, Richard, et al., eds. *Managing the Critically Ill Child: A Guide for Anaesthetists and Emergency Physicians*. Cambridge University Press, 2013.
4. *Домедична допомога (алгоритми, маніпуляції): Методичний посібник*/ В.О.Крилюк та ін. К.:НВП «Інтерсервіс», 2014. 84 с.
5. *Домедична допомога в умовах надзвичайних ситуацій: практичний посібник* / П. Б. Волянський, С. О. Гур'єв, М. Л. Долгий та ін.: ФОП Панов А. М., 2016. 136 с.
6. *Домедична допомога постраждалим внаслідок ДТП: Методичний посібник* / В. О. Крилюк, Ю. О. Чорний, А. І. Гоженко, М. І. Квітка. К.: ФОП Ференець В.Б., 2014. 84 с.
7. *Екстрена медична допомога травмованим на догоспітальному етапі: навчальний посібник* / В. О. Крилюк, С. О. Гур'єв, А. А. Гудима, Н.І. Іскра та ін. Київ, 2016. 400 с.
8. Баран С.В. *Невідкладні стани у внутрішній медицині*. К.: ВСВ «Медицина», 2011. 136 с.
9. *Екстрена медична допомога (гострі серцеві стани)* / Г.Г. Рошнін, О.М. Пархоменко, В.О. Крилюк та ін.: за ред. Г.Г. Рошніна. – К.: ТОВ «НВП «Інтерсервіс», 2011. - 159 с.
10. *Медицина невідкладних станів: швидка і невідкладна медична допомога* / І.С. Зозуля, А.В. Вершигора; В.І. Боброва та ін.; за ред. І. С. Зозулі. - К.: ВСВ «Медицина», 2012. - 728 с.

11. Десмургія : навчальний посібник / О. О. Виноградов, М. О. Ропасєва, О. І. Гужва, А. В. Радченко ; Держ. закл. «Луган. нац. ун-т імені Тараса Шевченка». – Старобільськ : Вид-во ДЗ «ЛНУ імені Тараса Шевченка», 2015. – 80 с.
12. Невідкладні стани в хірургії. /Навчальний посібник для медичних ВНЗ I—III рівнів акредитації МОЗ України/ К. Бобак, А. Бобак, В. Киретов - Київ ВСВ «Медицина» - 2017 – 560с.
13. Основи медичних знань та долікарської допомоги: підручник для студентів вищих навчальних закладів III-IV рівнів акредитації / Я.І. Федонюк, В.С. Грушко, О.М. Довгань та ін.; за ред. Я.І. Федонюка, В.С. Грушка. Тернопіль: Навчальна книга — Богдан, 2012. 728 с.
14. Андрющенко В.П., Кушта Ю.Ф., Андрющенко Д.В. Перша долікарська допомога: підручник. Л : ЛНМУ, 2011. 348 с.
15. Перша долікарська допомога: підручник/під ред. В.П. Андрющенко. Ю.Ф. Кушта, Д.В. Андрющенко – Львів: ЛНМУ. - 2011. – 351 с.
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13. Electronic information resources

1. <https://moz.gov.ua/> – Ministry of Health of Ukraine
2. www.ama-assn.org - American Medical Association / American Medical Association
3. www.who.int - World Health Organization
4. 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