

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

Petro Mohyla Black Sea National University


Medical Institute

Department of Hygiene, Social Medicine, Public Health and Medical Informatics

"APPROVE"

The first vice-rector

Shechenko NM


2021 year

CURRICULUM WORK PROGRAM

Emergency medicine

Developer
Head of the Department of
Developer
Guarantor of the educational
program
Director of the Institute
Chief of EMD

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Zuzin V.O.

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Mykolaiv - 2021

1. Description of the discipline

Characteristic	Characteristics of the discipline	
Name of discipline	Emergency medicine	
Field of knowledge	22 "Health care"	
Specialty	222 "Medicine"	
Specialization (if any)		
Educational program	Medicine	
Level of higher education	Master	
Discipline status	Normative	
Course	2 nd 4 th , 5 th	
Academic year	2021 - 2022	
Semester numbers:	Full-time	Correspondence form
	2 nd - 4	
	4 th - 8 5 th - 9	
Total number of ECTS credits / hours	6,5 credits /195 hours	
Course structure: - lectures - practical classes - hours of independent work of students	Full-time	Correspondence form
	20 hours	
	94 hours	
	81 hours	
Percentage of classroom load	58%	
Language of instruction	English	
Form of final control	Credit test	

2. Learning objectives, tasks and planned learning outcomes

2.1. The learning objectives of studying the discipline "Emergency Medicine" - the formation of future specialists' knowledge and skills of diagnosing emergencies, carrying out medical and evacuation measures, determining the tactics of emergency medical care under any circumstances, using knowledge about the human, his organs and systems of organs, adhering to the relevant ethical and legal norms, by making decision on the basis of a diagnosis of emergency in a limited time in accordance with certain tactics, using standard schemes, to provide emergency medical care.

2.2. The main tasks of studying the discipline "Emergency Medicine" are determined by the list of emergencies that the student must be able to diagnose, determine the tactics of treatment and emergency care in accordance with the existing protocols for emergency medicine:

Objectives of study: acquisition of competences, knowledge, abilities and skills for implementation of professional activity on a specialty:

2.3. To determine the basic principles of organization and provision of emergency and urgent medical care in Ukraine;

2.4. To master the skills of diagnosing emergencies at the scene as part of the emergency medical team (leader, participant) and the emergency department of a multidisciplinary hospital

2.5. To learn to recognize urgent conditions in the work of a general practitioner - family medicine, outpatient clinic, department (regardless of profile);

2.6. Learn how to determine the protocol for emergency medicine, which most closely matches the symptoms of the victim (patient);

2.7. To provide emergency medical care in accordance with the prescribed protocol on emergency medicine with the implementation of adequate manipulations: asphyxia, hypertensive crisis, acute respiratory failure, acute poisoning, electrical trauma, external bleeding, circulatory and respiratory arrest, coma, fainting, burns, hypothermia, drowning, shock, etc.

2.8. To master the organizational principles of providing emergency medical care and emergency situations of peacetime;

2.9. To study the sequence of actions of the teams of emergency medical care in case of mass injuries

2.10. To learn to carry out medical sorting of the victims.

Prerequisites for studying the discipline (interdisciplinary links)

Emergency and emergency medical care as a discipline:

2.11. Is based on the study by students of the basic principles in the field of knowledge: health care, anatomy, histology, biochemistry, physiology, pathomorphology; pathophysiology; surgery, internal medicine, pediatrics, pharmacology and integrates with these disciplines;

2.12. Is an integral part of all clinical disciplines and includes their most important sections, including internal medicine, pediatrics, surgery, traumatology and orthopedics, neurosurgery, urology, obstetrics and gynecology and other disciplines, which involves the integration of teaching in these disciplines and the formation of ability to use this knowledge in the process of further training and professional activity.

2.13. Lays the foundations of theoretical knowledge and preventive skills in the organization and conduction of medical and evacuation, sanitary - hygienic and anti-epidemic measures, including the organization of medical care in natural, anthropogenic emergencies and combat conditions.

2.14. Forms the methodological foundations of clinical thinking.

Expected learning outcomes. As a result of studying the discipline, students have:

- ability to solve typical and complex specialized tasks and practical problems in professional health care activities;
- the ability of the individual to organize an integrated humanitarian educational space, the formation of a single image of culture or a holistic picture of the world;
- ability to apply knowledge in practical situations;
- ability to practice self-regulation, lead a healthy lifestyle;
- ability to adapt and act in a new situation;
- ability to choose a strategy of self-medication;
- ability to work in a team;
- interpersonal skills;
- skills of abstract thinking, analysis and synthesis;
- ability to learn and be modernly trained;
- certainty and persistence in the tasks and responsibilities;
- ability to carry out medical and evacuation measures;
- ability to determine the tactics of emergency medical care;
- skills of providing emergency medical care;
- skills of performing medical manipulations.

According to the requirements of the educational and professional program, students must - know:

- professional and legal standards in everyday medical practice;
- signs of health and its changes, illness or disability (assessment, diagnosis);
- problems of patients with various diseases and conditions;
- professional skills, medical means, interventions and actions in assessing the functional state of disorders;
- assessment of the condition of victims in natural, anthropogenic emergencies and in combat conditions;
- organization of medical care for victims and wounded in major emergencies;
- basic principles of medical care for the population and troops;
- classification of sanitary losses of troops;
- organization and procedure for medical and evacuation measures among the civilian population and troops.

be able:

- to conduct an initial examination of the victims;
- to stop bleeding;
- provide medical care for injuries, fractures, dislocations, fractures;
- to carry out medical care at thermal and chemical defeats;
- provide assistance in the most common emergencies;
- to carry out medical care at mass defeats;
- to carry out medical sorting in case of mass sanitary losses;
- be able to organize and carry out the evacuation of the wounded;
- to carry out preventive and medical care in case of combat stress;
- to carry out medical, biological and psychological protection of the population;
- to conduct civil protection of medical and pharmaceutical measures;

have the competencies:

- on the application of knowledges on premedical care in extreme situations to promote the preservation of human life and rescue in emergency, also the use of basic principles to minimize the consequences of these conditions;
- about the main perspective directions of development of bases of medical maintenance of the population and armies.

The developed program corresponds to the educational-professional program (EPP) and is focused on the formation of competences:

general (GC) - GC1, GC2, GC3 EPP:

- GC1. Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.
- GC2. Ability to apply knowledge in practical situations.
- GC3. Knowledge and understanding of the subject area and understanding of professional activity;

professional (PC) - PC1, PC2, PC10, PC14, PC 17, PC22, EPP:

- PC1: Communication skills and clinical examination of the patient.
- PC2: Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
- PC10: Ability to carry out medical and evacuation measures.
- PC14: Ability to carry out sanitary and hygienic and preventive measures.

PC17: Ability to carry out working capacity examination.

PC22: Ability to conduct activities for the organization and integration of medical care and marketing of medical services.

According to the educational-professional program, the expected program learning outcomes (PLO) include the skills of PLO19, PLO20, PLO21, PLO26, PLO27 EPP:

PLO19. Determine the tactics of emergency medical care under any circumstances, using knowledge about the human, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision, based on the diagnosis of emergency (list 3) for a limited time using standard schemes.

PLO20. Provide emergency medical care under any circumstances, using knowledge of the human, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision, based on a diagnosis of emergency (list 3) for a limited time according to the defined tactics using standard schemes.

PLO21. Organize medical and evacuation measures among the population and servicemen, in emergency situations, including field condition, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.

PLO26. Implement a system of anti-epidemic and preventive measures in the health care institution, its unit according to the information of the state of health of certain contingents of the population and the impact on the environment, using existing methods, within the primary health care, of:

- organization of nutrition, water supply;
- mode of activity and rest;
- formation of a favorable production environment;
- primary prevention of diseases and injuries;
- vaccine prophylaxis;
- prevention of bad habits;
- prevention of unwanted pregnancy;
- promotion of a healthy lifestyle.

PLO27. Implement a system of primary prevention measures according to the information of the state of health of the served population and the presence of the determinants of health, in the health care facility and outside using existing methods, within the primary health care and sanitary assistance to the population:

- sanitary and educational measures of prevention the occurrence of infectious and non-infectious diseases, injuries and promote a healthy lifestyle;
- organization of rational nutrition, safe social and living conditions, water supply;
- mode of activity and rest.

3. The program of the discipline

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

The curriculum consists of 6 sections:

Blocks №1 - 2 are studied in the 4th semester.

Blocks №3 - 4 in the 8th.

Blocks №5 - 6 in the 9th semester.

The discipline page is located at the Department of Hygiene, Social Medicine and Public Health in the Moodle system.

Section 1. Premedical care in extreme conditions as an academic discipline. Medical evacuation activities under combat and non-combat conditions.

Topic 1. Premedical care in extreme conditions as an academic discipline. Monitoring the condition of the wounded. Definition of the term "Premedical care" and the legal basis for its implementation. Initial review algorithm. Monitoring the condition of the wounded.

Topic 2. Sorting in case of mass sanitary losses sorting method, sorting groups. Medical evacuation, stages of medical evacuation Organization and carrying out of medical sorting at occurrence of mass sanitary losses. Algorithm for medical sorting. Organization and carrying out of movement (dragging, removal) of the wounded to shelter in combat and non-combat conditions. Methods of moving the wounded from the shelter sector to the place of collection of the wounded (by one, two persons, using regular and improvised means). Medical information card: appointment, rules of filling.

Topic 3. Behavior of people in emergencies and combat. Combat stress and fatigue: symptoms, home care, prevention. Features of people's behavior in emergencies. Combat stress: symptoms, prevention and basic principles of premedical care in combat. Combat fatigue: signs, prevention and basic principles of premedical care in combat. Typical psychological reactions of medical workers to various traumatic events. Mechanisms of stress resistance formation in medical workers. Technologies for the prevention of post-traumatic stress disorders. Debriefing as a method of psychological correction of post-traumatic stress disorders.

Section 2. Premedical care for victims in extreme cases in combat and non-combat conditions.

Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag). Chest anatomy. Fundamentals of gas exchange physiology. Indications and contraindications for indirect heart massage. Methods of massage in adults and children Breathing from mouth to mouth, methods, personal safety measures Ambu bag device, methods of breathing with a mask and air duct.

Topic 5. Damage to the respiratory tract. Premedical care. Complete and partial airway obstruction. Causes of obstruction. Causes of obstruction. Indications for reception of Heimlich. Method of performing. Air ducts, production technique.

Topic 6. Traumatic injuries in combat and non-combat conditions. Immobilization. The concept of injury and trauma. Traumatic injuries: bruises, soft tissue wounds, dislocations, fractures. Traumatic injuries of the chest, trouser cavity. Combat injuries, bullet and shrapnel wounds. First aid. Desmurgia, types of bandages. Immobilization, basic principles. Splints.

Topic 7. Providing premedical care for thermal and chemical burns. Thermal burns, classification. Clinic. Home care. Burns with alkali, acid, radioactive radiation. Clinic. Home care.

Topic 8. Providing premedical care in the most common extreme cases. Bleeding and methods of emergency arrest. Jute, types of jute. Medical tourniquet application technique, application time. Providing home care for sunstroke, hypothermia, loss of consciousness, nosebleeds, insect bites, drowning

Topic 9. Means of mass destruction. Premedical care for victims. Characteristics of chemical and nuclear weapons, means of supply. Classification depending on the effect on the human body. Characteristics of the focus of chemical and nuclear contamination. Collective and individual protection equipment.

Section 3. Basics of organization of medical support of the population and troops

Topic 1. International humanistic law of life and health protection of the affected population. The Constitution of Ukraine article of the protection of human life, health and safety. Code of Civil Protection of Ukraine. Law "On emergency medical care". State policy in the field of security and protection of people about emergencies. The only state system of civil protection of the population and territories from emergencies of technogenic and natural character, structure and modes of its activity.

Topic 2. Purpose, tasks, principles of civil protection of the population and territories. State Service of Ukraine for Emergencies (SES of Ukraine). Forces and means of civil protection. The concept of emergencies. Classification and main causes of emergencies in Ukraine. Medical and sanitary consequences of natural and technogenic disasters. Social and political emergencies and its consequences.

Topic 3. Medical, biological and psychological protection, ensuring sanitary - hygienic and epidemic well-being of the population.

The purpose and objectives of medical and evacuation support in natural and technogenic emergencies.

Types and amounts of medical care. The use of preventive drugs, the necessary hygienic and other measures. Basics of planning and application of medical forces and means in case of emergency. Organization of training of the population in the basic rules of protection and skills of first aid. Training and retraining of medical workers of providing emergency medical care.

Topic 4. Organization of civil protection of medical and pharmaceutical institutions. Stability of the medical institution in emergencies, the main elements. Assessment of the sustainability of the medical institution, depending on the characteristics of its location and activities and the main directions and necessary measures for its improvement. Medical and technical support of stable operation of the medical institution in emergency situations. Ensuring the stability of the medical institution in emergency situations. Planning of measures of civil protection of medical and pharmaceutical institutions. Formation of civil defense of medical and pharmaceutical institutions, their purpose, application and action on alert signals.

Topic 5. Tasks, organization and current issues of the medical service of the Armed Forces of Ukraine in conditions of armed conflict. The main tasks of the medical service of the Armed Forces of Ukraine

in conditions of armed conflicts, their content and significance. Conditions of medical service activity and their influence on the organization of medical support of troops. Organizational structure of the medical service of the Armed Forces of Ukraine. Categories of medical service personnel. The role and place of medical service of the Armed Forces of Ukraine in the national system of medical care in armed conflicts. The concept of loss of troops. Definition and classification of sanitary losses, their characteristics. The magnitude of sanitary losses, its dependence on the weapons used by the enemy. A brief description of the striking factors of

modern weapons. Influence of the size and structure of sanitary losses on the organization of medical support of troops.

Topic 6. The concept and content of medical and evacuation support. The essence of the modern system of medical and evacuation support, its principles. The concept of the stage of medical evacuation, tasks, schematic diagram and requirements for deployment. Types and extent of medical aid. Medical sorting in combat conditions. Definition, brief description. Basic tasks, principles and organization of medical sorting. Medical evacuation, concept, purpose and procedure. Medical transport for evacuation of the wounded and sick. Features of the organization and carrying out of medical and evacuation actions in the conditions of anti-terrorist operation in the east of Ukraine.

Section 4. Organization of medical support for surgical and neurological patients in emergencies and combat conditions

Topic 7. Injuries and diseases of the soft tissues of the extremities in emergencies and combat conditions. Soft tissue damage. Closed soft tissue injuries. Open soft tissue injuries. Non-specific inflammatory diseases of the soft tissues of the extremities. Inflammatory diseases of synovial membranes (bursitis) Acute bursitis. Chronic bursitis (hygroma). Some types of bursitis. Diseases of tendons and tendon vaginas. Hydroadenitis. Ossifying myositis.

Topic 8. Damage and disease of blood vessels of the extremities in combat. Damage to the vessels of the extremities. Injury to major arteries of extremities. Traumatic aneurysms of blood vessels of the extremities. Injuries of the veins of the extremities. Closed injuries to the major arteries of the extremities. Diseases of the vessels of the extremities. Acute arteritis and ulceration of arteries. Arterial embolism. Phlebothrombosis. Phlebitis. Thrombophlebitis. Oblate thrombangiogenesis.

Topic 9. Damage to the nerves of the extremities in combat. Traumatic dislocations of the bones of the extremities in combat. Closed nerve damage. Nerve injuries. Damage to various nerves of the extremities (brachial plexus, radial nerve, median nerve, ulnar nerve, sciatic nerve, tibial nerve, femoral nerve, femoral nerve).

Topic 10. Ankylosis, contractures, deformity of joints in combat conditions Ankylosis, contractures, deformity of joints of the upper extremities (shoulder joint, elbow joint, hand and fingers). Ankylosis, contractures, deformity of the joints of the lower extremities. (hip joint, knee joint, shin-femoral joint, foot joints). "Trench foot".

Topic 11. Gunshot wounds. Features of wound treatment in combined radiation injuries. Bullet and shrapnel wounds. Pathophysiology of the wound process. Classification of wounds. Tactics of wound healing at the stages of evacuation. Wounds of the head, neck, chest, abdomen and limbs area.

Topic 12. General principles of first aid in head injuries. Penetrating and non-penetrating wounds. Classification (tangent, tangential, simple, radial segmental, diametrical). Wound clinic, diagnostics. Examination, treatment. Complications: bleeding, edema.

Topic 13. Crush syndrome. Pathogenesis of crush syndrome. Clinical picture, typical periods, forms of the syndrome. Treatment at the stages of medical evacuation: first emergency medical aid, first aid, qualified surgical care, specialized surgical care. Complication.

Topic 14. Bleeding and blood loss as the most common complications of injuries, especially during hostilities. Classification of bleeding: arterial, arteriovenous, venous, capillary, external and internal, primary, secondary. Internal bleeding: clinic, diagnosis, examination. The extent of acute blood loss (according to GO Barashkov). The mechanism of dysfunction of the body due to acute blood loss. Assistance during the evacuation stages.

Section 5. Fundamentals of medical care for victims of emergencies and disasters

Topic 1. Tasks and organization of the State Emergency Service of Ukraine. Classification of emergencies and disasters. Resolution of the Cabinet of Ministers of Ukraine of April 14, 1997 № 343, organization of EMS in the system of the Ministry of Health of Ukraine at the state level, territorial level - in the system of the Ministry of Health of departments (divisions) of health care of regional and city state administrations. Resolution of the Cabinet of Ministers of Ukraine of July 15, 1998 № 1099 "Regulations on the Classification of Emergencies".

Topic 2. Medical and tactical characteristics of accidents. The concept of medical and tactical characteristics of disasters. Factors of damage (multifactoriality): dynamic (mechanical), thermal, biological, chemical influences, radiation. Psychoneurological stress, shock, stun.

Topic 3. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies. Emergencies and their connection with sanitary-epidemiological and medical-social problems. Tasks for providing EMC to the affected and sanitary and epidemiological support of the affected population. Work organization of governing organs, treatment-and-prophylactic and sanitary-and-epidemiological establishments in the period of emergency. Causes of epidemic outbreaks in areas of natural disasters and catastrophes. Medical and non-medical forces and means of the system of anti-epidemic protection of the population. Epidemiological observation. Quarantine (observation) measures.

Section 6. Emergency medical care in emergencies and disasters

Topic 4. Reanimation and intensive care. Emergency medicine and anesthesiology - as an independent science of the laws of extinction of vital functions of the body, methods of their active recovery and long-term support. Methods, ways and stages of resuscitation. The main periods of resuscitation care for victims with severe injuries and traumas. Causes of acute respiratory disorders. Basic techniques of resuscitation.

Topic 5. General principles of emergency care in acute poisoning. Chemical pneumonia and bronchitis. Ways of poisonous substances entering the body. Features of emergency medical care in case of acute poisoning: active detoxification, specific antidote therapy, symptomatic therapy. Consequences of poisoning: disorders of consciousness (somnia, constipation, coma, acute psychosis). Somatovegetative disorders. Aspiration - obturation syndrome. Toxic liver damage in acute poisoning.

Topic 6. Diseases of the digestive system and liver in combat. Enteritis and colitis in combat. Acute enterocolitis (non-specific). Chronic enteritis. Digestive lesions in acute poisoning. Acute and chronic hepatitis in combat. Botkin's disease. Chronic hepatitis. Liver cirrhosis.

Topic № 7. Kidney disease in combat. Acute and chronic nephritis. Toxic kidney damage in acute poisoning. Acute and chronic nephrosis. Acute nephrosis. Chronic nephrosis. Nephrosclerosis.

Topic 8. Extreme toxicology. Modern "chemical danger". Accidents and catastrophes in peacetime. Accident at chemical facilities. Conducting hostilities. The use of chemical weapons. Toxic chemicals (TC). Protection of the population and troops. Combat toxic chemicals. Toxic substances and toxins. Combat phytotoxicants. "Police gases". Diversion agents. Protection of the population and troops. Medical chemical protection.

Topic 9. Chemical weapons. General characteristics. Combat toxic chemicals (CTC). Classification of toxic substances. The center of chemical damage. Fundamentals of medical and toxic characteristics of chemical lesions. Protection of the population and troops.

Structure of the discipline

Tasks		Number of hours			
		Total	lectures	practical classes	ISW
№	1	2	3	4	5
Section 1. Premedical care in extreme conditions as an academic discipline. Medical evacuation activities under combat and non-combat conditions.					
1	Topic 1. Premedical care in extreme conditions as an academic discipline. Monitoring the condition of the wounded.	6	1	2	4
2	Topic 2. Sorting in case of mass sanitary losses. Medical evacuation.	8	1	4	2
3	Topic 3. Primary and secondary examination of the victim.	6		4	2
4	Final section control.	2		2	
5	Total for section 1:	22	2	12	8
Section 2. Premedical care for victims in extreme cases in combat and non-combat conditions.					
6	Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag).	8	2	4	2
7	Topic 5. Damage to the respiratory tract. Premedical care.	5		2	3
8	Topic 6. Traumatic injuries in combat and non-combat conditions. Immobilization.	6		4	2
9	Topic 7. Providing premedical care for thermal and chemical burns.	5		2	3
10	Topic 8. Providing premedical care in the most common extreme cases. Bleeding and methods of emergency arrest.	6		4	2
11	Topic 9. Means of mass destruction. Premedical care for victims.	6		2	4
12	Credit test.	2		2	
13	Total:	38	2	20	16
14	Total number of hours for section 1 and 2(2nd course, 4th semester)	60	4	32	24
Section 3. Basics of organization of medical support of the population and troops					
1	Topic 1. Normative and legal bases of civil protection in Ukraine. Protection of the population and territories from emergencies.	3	1	2	
2	Topic 2. Fundamentals of civil protection.	3	1	2	

3	Topic 3. Medical, biological and psychological protection, ensuring sanitary - hygienic and epidemic well-being of the population.	4		2	2
4	Topic 4. Organization of civil protection of medical and pharmaceutical institutions.	4		2	2
5	Topic 5. Tasks, organization and current issues of the medical service of the Armed Forces of Ukraine in conditions of armed conflict.	2		2	
6	Topic 6. The modern system of medical and evacuation support of troops.	4		2	2
7	Total for section 3:	20	2	12	6
Section 4. Organization of medical support for surgical and neurological patients in emergencies and combat conditions					
9	Topic 7. Injuries and diseases of the soft tissues of the extremities in emergencies and combat conditions.	7	1	2	4
10	Topic 8. Damage and disease of blood vessels of the extremities in combat.	6	1	2	3
11	Topic 9. Damage to the nerves of the extremities in combat. Traumatic dislocations of the bones of the extremities in combat.	7	1	2	4
12	Topic 10. Ankylosis, contractures, deformity of joints in combat conditions.	6	1	2	3
13	Topic 11. Gunshot wounds. Features of wound treatment in combined radiation injuries.	8	2	2	4
14	Topic 12. General principles of first aid in head injuries.	7	2	2	3
15	Topic 13. Crush syndrome.	6	1	2	3
16	Topic 14. Bleeding and blood loss.	6	1	2	3
17	Credit test	2		2	
17	Total for section 4:	55	10	18	27
18	Total number of hours for section 3 and 4 (4th course, 8th semester):	75	12	30	33
Section 5. Fundamentals of medical care for victims of emergencies and disasters					
19.	Topic 1. Tasks and organization of the State Emergency Service of Ukraine. Classification of emergencies and disasters.	6	0.5	2	4
20.	Topic 2. Medical and tactical characteristics of accidents.	8	0.5	4	2
21.	Topic 3. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies.	6	1	4	2
22.	Final section control	2		2	
23.	Total:	22	2	12	8
Section 6. Emergency medical care in emergencies and disasters					
24.	Topic 4. Reanimation and intensive care.	8		4	2
25.	Topic 5. General principles of emergency care in acute poisoning.	5	0,5	2	3
26.	Chemical pneumonia and bronchitis.				
27.	Topic 6. Diseases of the digestive system and liver in combat.	6		4	2
28.	Topic № 7. Kidney disease in combat.	5		2	3
29.	Topic 8. Extreme toxicology. Modern "chemical danger".	6	0.5	4	2
30.	Topic 9. Chemical weapons. General characteristics.	6	1	2	4

31.	Credit test	2		2	
32.	Total:	38	2	20	16
33.	Total number of hours for section 5 and 6 (5th course, 9th semester):	60	4	32	24
34.	Total:	19	20	94	81

4. The content of the discipline

4.1. Lecture topics

№	Topic	Hours
Section 1 - 2		
1.	Topic 1, 2. Topic 1. Premedical care in extreme conditions as an academic discipline. Monitoring the condition of the wounded. Monitoring the condition of the wounded. Sorting in case of mass sanitary losses sorting method, sorting groups. Medical evacuation. Definition of the term "Premedical care". General principles of emergency treatment. Rules of examination of victims with emergencies. Primary and secondary examination. Monitoring the condition of the main organs and systems of the body (respiratory and cardiovascular, digestive and urinary systems).	2
2.	Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag). Chest anatomy. Fundamentals of gas exchange physiology. Indications and contraindications for indirect heart massage. Methods of massage in adults and children. Breathing from mouth to mouth, methods, personal safety measures Ambu bag device, methods of breathing with a mask and air duct.	2
Section 3-4		
3.	Topic 1,2. Normative and legal bases of civil protection in Ukraine. Protection of the population and territories from emergencies. Fundamentals of civil protection. International humanistic law of life and health protection of the affected population. The Constitution of Ukraine article of the protection of human life, health and safety. Code of Civil Protection of Ukraine. Law "On emergency medical care". State policy in the field of security and protection of people about emergencies. The only state system of civil protection of the population and territories from emergencies of technogenic and natural character, structure and modes of its activity.	2
4.	Topic 7,8. Injuries and diseases of the soft tissues of the extremities in emergencies and combat conditions. Soft tissue damage. Closed soft tissue injuries. Open soft tissue injuries. Inflammatory diseases of synovial membranes (bursitis) Acute bursitis. Chronic bursitis (hygroma). Some types of bursitis. Diseases of tendons and tendon vaginas. Hydroadenitis. Ossifying myositis. 4. Damage and disease of blood vessels of the extremities in combat Damage to the vessels of the extremities. Injury to major arteries of extremities. Traumatic aneurysms of blood vessels of the extremities. Injuries of the veins of the extremities. Closed injuries to the major arteries of the extremities. Diseases of the vessels of the extremities. Acute arteritis and ulceration of arteries. Arterial embolism. Phlebothrombosis. Phlebitis. Thrombophlebitis. Oblate thrombangiosis.	2
5.	Topic 9,10. Damage to the nerves of the extremities in combat. Traumatic dislocations of the bones of the extremities in combat. Closed nerve damage. Nerve injuries. Damage to various nerves of the extremities (brachial plexus, radial nerve, median nerve, ulnar nerve, sciatic nerve, tibial nerve, femoral nerve, femoral nerve). Ankylosis, contractures, deformity of joints in combat conditions Ankylosis, contractures, deformity of joints of the upper extremities (shoulder joint, elbow joint, hand and fingers). Ankylosis, contractures, deformity of the joints of the lower extremities. (hip joint, knee joint, shin-femoral joint, foot joints). "Trench foot".	2
6.	Topic 11. Gunshot wounds. Features of wound treatment in combined	2

	radiation injuries. Bullet and shrapnel wounds. Pathophysiology of the wound process. Classification of wounds. Tactics of wound healing at the stages of evacuation. Wounds of the head, neck, chest, abdomen and limbs area.	
7.	Topic 12. General principles of first aid in head injuries. Penetrating and non-penetrating wounds. Classification (tangent, tangential, simple, radial segmental, diametrical). Wound clinic, diagnostics. Examination, treatment. Complications: bleeding, edema.	2
8.	Topic 13,14. Crush syndrome. Pathogenesis of crush syndrome. Clinical picture, typical periods, forms of the syndrome. Treatment at the stages of medical evacuation: first emergency medical aid, first aid, qualified surgical care, specialized surgical care. Complication. Bleeding and blood loss.	2
Section 5-6		
9.	Topic 1,2,3. Tasks and organization of the State Emergency Service of Ukraine. Classification of emergencies and disasters. Resolution of the Cabinet of Ministers of Ukraine of April 14, 1997 № 343, organization of EMS in the system of the Ministry of Health of Ukraine at the state level, territorial level - in the system of the Ministry of Health of departments (divisions) of health care of regional and city state administrations. Resolution of the Cabinet of Ministers of Ukraine of July 15, 1998 № 1099 "Regulations on the Classification of Emergencies". Medical and tactical characteristics of accidents. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies.. Epidemiological observation. Quarantine (observation) measures.	2
10.	Topic 5,8,9. General principles of emergency care in acute poisoning. Chemical pneumonia and bronchitis. Extreme toxicology. Modern "chemical danger". Chemical weapons. General characteristics.	2
11.	TOTAL:	20

4.2 Topics of practical classes

№	Topic	Number of hours
1.	Topic 1. Premedical care in extreme conditions as an academic discipline. Monitoring the condition of the wounded.	2
2.	Topic 2. Sorting in case of mass sanitary losses sorting method, sorting groups. Medical evacuation,	2
3.	Topic 2. Sorting in case of mass sanitary losses sorting method, sorting groups. Medical evacuation,	2
4.	Topic 3. Primary and secondary examination of the victim.	2
5.	Topic 3. Primary and secondary examination of the victim.	2
6.	Final section control	2
7.	Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag).	2
8.	Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag).	2
9.	Topic 5. Damage to the respiratory tract. Premedical care.	2
10.	Topic 6. Traumatic injuries in combat and non-combat conditions. Immobilization.	2
11.	Topic 6. Traumatic injuries in combat and non-combat conditions.	2

	Immobilization.	
12.	Topic 7. Providing premedical care for thermal and chemical burns.	2
13.	Topic 8. Providing premedical care in the most common extreme cases. Bleeding and methods of emergency arrest.	2
14.	Topic 8. Providing premedical care in the most common extreme cases. Bleeding and methods of emergency arrest.	2
15.	Topic 9. Means of mass destruction. Premedical care for victims.	2
16.	Credit test.	2
	Total for section 1 and 2(2nd course, 4th semester)	32
17.	Topic 1. Normative and legal bases of civil protection in Ukraine. Protection of the population and territories from emergencies.	2
18.	Topic 2. Fundamentals of civil protection.	2
19.	Topic 3. Medical, biological and psychological protection, ensuring sanitary - hygienic and epidemic well-being of the population.	2
20.	Topic 4. Organization of civil protection of medical and pharmaceutical institutions.	2
21.	Topic 5. Tasks, organization and current issues of the medical service of the Armed Forces of Ukraine in conditions of armed conflict.	2
22.	Topic 6. Modern system of medical and evacuation support of troops.	2
23.	Topic 7. Injuries and diseases of the soft tissues of the extremities in emergencies and combat conditions.	2
24.	Topic 8. Damage and disease of blood vessels of the extremities in combat.	2
25.	Topic 9. Damage to the nerves of the extremities in combat. Traumatic dislocations of the bones of the extremities in combat,	2
26.	Topic 10. Ankylosis, contractures, deformity of joints in combat conditions.	2
27.	Topic 11. Gunshot wounds. Features of wound treatment in combined radiation injuries.	2
28.	Topic 12. General principles of first aid in head injuries.	2
29.	Topic 13. Crush syndrome.	2
30.	Topic 14. Bleeding and blood loss.	2
31.	Credit test	2
32.	Total for section 3 and 4 (4th course, 8th semester):	30
33.	Topic 1. Tasks and organization of the State Emergency Service of Ukraine. Classification of emergencies and disasters,	2
34.	Topic 2. Medical and tactical characteristics of accidents.	2
35.	Topic 2. Medical and tactical characteristics of accidents.	2
36.	Topic 3. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies.	2
37.	Topic 3. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies.	2
38.	Total section control.	2
39.	Topic 4. Reanimation and intensive care.	2
40.	Topic 4. Reanimation and intensive care.	2
41.	Topic 5. General principles of emergency care in acute poisoning. Chemical pneumonia and bronchitis.	2
42.	Topic 6. Diseases of the digestive system and liver in combat.	2
43.	Topic 6. Diseases of the digestive system and liver in combat.	2
44.	Topic 7. Kidney disease in combat.	2

45.	Topic 7. Kidney disease in combat.	2
46.	Topic 8. Extreme toxicology. Modern "chemical danger".	2
47.	Topic 9. Chemical weapons. General characteristics.	2
48.	Credit test:	2
49.	Total number of hours for section 5 and 6 (5th course, 9th semester):	94

4.3. Tasks for independent work:

For independent work of students the tasks of theoretical character which are insufficiently thoroughly considered within lectures and practical employments are taken out. The student must study literary sources and be ready to answer questions during practical classes and credit test. Practical part includes tests and tasks.

- theoretical training
- performance of test tasks
- solving situational tasks
- practical skills training

№	Topic	Number of hours
Section 1-2		
1.	Topic 1. Premedical care in extreme conditions as an academic discipline. Monitoring the condition of the wounded	4
2.	Topic 2. Sorting in case of mass sanitary losses sorting method, sorting groups. Medical evacuation,	2
3.	Topic 3. Primary and secondary examination of the victim.	2
4.	Topic 4. Methods and indications for resuscitation (indirect heart massage, mouth-to-mouth breathing, Ambu bag).	2
5.	Topic 5. Damage to the respiratory tract. Premedical care.	3
6.	Topic 6. Traumatic injuries in combat and non-combat conditions. Immobilization.	2
7.	Topic 7. Providing premedical care for thermal and chemical burns.	3
8.	Topic 8. Providing premedical care in the most common extreme cases. Bleeding and methods of emergency arrest.	2
9.	Topic 9. Means of mass destruction. Premedical care for victims.	4
10.	Total for section 1 and 2(2nd course, 4th semester)	24
Section 3-4		
11.	Topic 1. Normative and legal bases of civil protection in Ukraine. Protection of the population and territories from emergencies.	
12.	Topic 3. Medical, biological and psychological protection, ensuring sanitary - hygienic and epidemic well-being of the population.	2
13.	Topic 4. Organization of civil protection of medical and pharmaceutical institutions.	2
14.	Topic 6. Modern system of medical and evacuation support of troops.	2
15.	Topic 7. Injuries and diseases of the soft tissues of the extremities in emergencies and combat conditions.	4
16.	Topic 8. Damage and disease of blood vessels of the extremities in combat.	3
17.	Topic 9. Damage to the nerves of the extremities in combat. Traumatic dislocations of the bones of the extremities in combat,	4

18.	Topic 10. Ankylosis, contractures, deformity of joints in combat conditions.	3
19.	Topic 11. Gunshot wounds. Features of wound treatment in combined radiation injuries.	4
20.	Topic 12. General principles of first aid in head injuries.	3
21.	Topic 13. Crush syndrome.	3
22.	Topic 14. Bleeding and blood loss.	3
23.	Total for section 3 and 4 (4th course, 8th semester):	33
	Section 5-6	
24.	Topic 1. Tasks and organization of the State Emergency Service of Ukraine. Classification of emergencies and disasters,	4
25.	Topic 2. Medical and tactical characteristics of accidents.	2
26.	Topic 3. Organization of sanitary - hygienic and anti-epidemic measures in the centers during emergencies.	2
27.	Topic 4. Reanimation and intensive care.	2
28.	Topic 5. General principles of emergency care in acute poisoning. Chemical pneumonia and bronchitis.	3
29.	Topic 6. Diseases of the digestive system and liver in combat.	2
30.	Topic 7. Kidney disease in combat.	3
31.	Topic 8. Extreme toxicology. Modern "chemical danger".	2
32.	Topic 9. Chemical weapons. General characteristics.	4
33.	Total number of hours for section 5 and 6 (5th course, 9th semester):	24
34.	Total number of hours for 1-6 sections	81

Individual tasks

Selection and review of scientific literature on the subject of the program for medical support of the population and troops of the student's choice with the writing of an research and its public defense. Selection and review of scientific literature on the subject of research work of the department with the preparation of a scientific report at a meeting of the SSS or at student conferences. Scientific research on the subject of research work of the department with the publication of results in scientific journals. Assessment of an individual task is carried out in accordance with the criteria and points of a particular practical lesson. The maximum score is 7 points.

4.4 Ensuring the educational process

1. Simulators, mannequins, medical instruments, equipment and medical consumables.
2. Multimedia projectors, computers, screens for multimedia presentations, lecture presentations.
3. Laptops, files in "Power Point and Word" with tasks "Step-2" for practical and final classes.
4. Credit tickets, test tasks in "Moodle"

5. Final control

Questions for self-preparation and control of the level of knowledge

1. Definition of the concept of home care and legal aspects of the proceedings.
2. Basic principles of home care.

3. Sectors of medical care for the wounded.
4. Assistance in the bombing sector.
5. Algorithm of home medical care in the shelling sector.
6. Algorithm of home care in the shelter sector.
7. Algorithm of the initial inspection.
8. Examination of the head and neck.
9. Examination of the torso.
10. Examination of the perineum, groin, limbs.
11. Individual medical equipment.
12. Causes and signs of external bleeding.

13. The concept of critical external bleeding.
14. Hemostatic agents.
15. Applying bandages, tourniquets.
16. Causes and signs of internal bleeding. Premedical care.
17. Collapse and shock. Reasons. Signs. Help.
18. Causes and signs of airway obstruction.
19. Carrying out mechanical ventilation (mouth to mouth, mouth to nose).
20. Burns, classification, signs.
21. Help with thermal burns.
22. Features of the defeat of the combat fire mixture. Assistance to victims.
23. Chemical burns. Help.
24. Frostbite. Help. Trench foot. Prevention of frostbite.
25. Hyperthermia. Premedical care.
26. Electric shock. Help.
27. Burns of the eyes. Help.
28. Chemical lesions of the eyes. Help.
29. Pain. Premedical care.
30. Fainting, coma of unknown etiology. Premedical care.
31. Premedical care for poisoning by an unknown gas or substance.
32. Help with insect, mites, venomous snakes bites.
33. Assistance to the drowning person.
34. Traumatic injuries. Fractures, dislocations, sprains.
35. Immobilization techniques.
36. Transport immobilization on suspicion of spinal cord injury
37. The organization and carrying out of medical sorting at occurrence of mass sanitary losses.
38. Algorithm for medical sorting.
39. Organizing and conducting the evacuation of the wounded in combat and non-combat conditions.
40. Preparation of the wounded (injured) for evacuation.
41. Rules of request for evacuation.
42. Features of human behavior in emergencies.
43. Typical reaction of medical workers to various traumatic events.
44. Mechanisms of stress resistance formation in medical workers.
45. Prevention of post-traumatic stress disorders.
46. Debriefing as a method of psychological correction of post-traumatic stress disorders.
47. Combat stress and combat fatigue: signs, prevention and basic principles of medical care in combat.
48. The main tasks of the medical service of the Armed Forces of Ukraine in conditions of armed conflicts, their content and significance.

49. Conditions of medical service and their impact on the organization of medical support of troops.
50. Organizational structure of the medical service of the Armed Forces of Ukraine.
51. The concept of loss of troops.
52. Definition and classification of sanitary losses, their characteristics.
53. Factors influencing the size of sanitary losses.
54. The modern structure of sanitary losses, their dependence on the weapons used by the enemy.
55. Characteristics of the striking factors of modern weapons.
56. The impact of the magnitude and structure of sanitary losses on the organization of medical support of troops.
57. The concept of stages of medical evacuation, tasks, schematic diagram and requirements for deployment.
58. Medical sorting in combat.
59. Basic tasks, principles and organization of medical sorting.
60. Medical evacuation, concept, purpose and procedure.
61. Medical transport for evacuation of the wounded and sick.
62. Features of medical and evacuation measures in the conditions of the anti-terrorist operation in the east of Ukraine.
63. Normative and legal bases of civil protection in Ukraine.
64. Protection of the population and territory from emergencies.
65. Fundamentals of civil protection.
66. Medical, biological and psychological protection.
67. Ensuring the sanitary and epidemic well-being of the population.
68. Organization of civil protection of medical and pharmaceutical institutions.
69. Organization of medical care for surgical patients in emergencies and combat conditions.
70. Organization of medical support for neurological patients in emergencies and combat conditions.
71. Damage to blood vessels of the extremities in combat.
72. Diseases of blood vessels in combat.
73. Damage to the nerves of the extremities in combat.
74. Fractures of the bones of the extremities in combat.
75. Traumatic dislocations of the bones of the extremities in combat.
76. Damage to the joints of the extremities in combat.
77. Diseases of the joints of the extremities in combat.
78. Ankylosis, contractures, deformity of joints in combat.
79. Medical support of therapeutic patients in emergencies and combat conditions
80. Medical support of toxicological patients in emergencies and combat conditions
81. Respiratory diseases in combat.
82. Diseases of the digestive system and liver in combat.
83. Liver disease in combat.
84. Kidney disease in combat.
85. Extreme toxicology.
86. Modern "chemical danger".
87. Accidents and catastrophes in peacetime.
88. Combat toxic chemicals.
89. Chemical weapons.
90. Combat toxic chemicals.
91. The center of chemical damage.
92. Classification of toxic substances.
93. The main medical and toxic characteristics of foci of chemical damage.

94. Protection of the population and troops from toxic substances.
95. Protection of the population and troops from chemical damage.
96. Medical chemical protection.

Example of a test task

Topic №1 - 2. Medical sorting in case of mass sanitary losses. Algorithm for medical sorting.

1. Medical support of troops is a system of measures carried out in the armed forces in all types of their combat and daily activities in order to maintain the combat capability of troops (forces) by preserving and strengthening the health of personnel, providing medical care to servicemen, their treatment and rapid recovery of combat readiness and efficiency after injuries, traumas and diseases. What groups of measures are included in the system of medical support of troops?

- A. Organizational
- B. Therapeutic and prophylactic
- B. Sanitary and anti-epidemic
- D. Medical supply measures

2. Medical sorting is the division of the wounded and sick into groups according to the need for similar treatment and evacuation and preventive measures. As a result of medical sorting at stages of medical evacuation groups of wounded and dangerous for others are allocated. Indicate who belongs to them.

- A. Infectious patients or persons affected by bacterial agents
- B. Affected by toxic substances
- B. Who are in a state of sharp psychomotor arousal
- D. With contamination of the skin and uniforms with radioactive substances

3. Medical service in mechanized companies is represented by senior combat medics. Indicate for what kind of medical care these medical personnel are intended?

- A. Home care
- B. First aid
- B. First emergency medical aid and first aid
- G. Pre-medical help
- D. The first medical and pre-medical

4. As a result of medical sorting at the stage of medical evacuation (SME) a group of wounded and sick is distinguished, which are marked with black sorting marks - "black sorting group". Who belongs to the specified sorting group?

- A. Wounded (injured) in need of emergency medical care on this SME (emergency), medical care and evacuation are provided in the first place
- B. Wounded (injured) to whom medical care can be postponed for a limited time without the threat of death (urgent) are subject to further evacuation after the urgent wounded group
- C. Wounded (injured) who received incompatible with life damages and need only measures of symptomatic therapy (agonizing)
- D. Wounded (injured) who received injuries for which there is no need for medical care on this SME

5. An earthquake occurred in the mountainous region of the country. In the center of mass sanitary losses, paramedics and combat medics of one of the military units located nearby began to provide medical care to the wounded and wounded. What kind of medical care are these medical workers intended for in emergency situations?

- A. First medical and pre-medical care
- B. First aid

- B. First medical, pre-medical and first medical care
- G. Pre-medical and first aid
- D. First aid and qualified medical care

6. As a result of medical sorting at the stage of medical evacuation (SME) a group of wounded and sick is distinguished, which are marked with yellow sorting marks - "yellow sorting group". Who belongs to the specified sorting group?

- A. Wounded (injured) in need of emergency medical care on this SME (emergency), medical care and evacuation is provided in the first place
- B. Wounded (injured) to whom medical care can be postponed for a limited time without the threat of death (urgent) are subject to further evacuation after the urgent wounded group
- C. Wounded (injured) to whom medical care may be postponed for a longer period (lightly wounded, walking) provide medical care in the third place.
- D. Wounded (injured) who received incompatible with life damages and need only measures of symptomatic therapy (agonizing)
- E. Wounded (injured) who received injuries for which there is no need for medical care on this SME

7. As a result of medical sorting at the stage of medical evacuation (SME) a group of wounded and sick is distinguished, which are marked with red sorting marks - "red sorting group". Who belongs to the specified sorting group?

- A. Wounded (injured) in need of emergency medical care on this SME (emergency), medical care and evacuation is provided in the first place
- B. Wounded (injured) to whom medical care can be postponed for a limited time without the threat of death (urgent) are subject to further evacuation after the urgent wounded group
- C. Wounded (injured) to whom medical care may be postponed for a longer period (lightly wounded, walking) provide medical care in the third place.
- D. Wounded (injured) who received incompatible with life damages and need only measures of symptomatic therapy (agonizing)
- E. Wounded (injured) who received injuries for which there is no need for medical care on this SME

8. Medical sorting is the division of the wounded and sick into groups according to the need for similar treatment and evacuation and preventive measures. What are the main groups of wounded and sick are distinguished at the stages of medical evacuation (SME) as a result of medical sorting?

- A. Persons dangerous to others
- B. Persons in need of medical care on this SME
- B. Persons subjected to further evacuation without medical assistance
- D. Persons to be returned to their units

9. During the reconnaissance and chemical patrol in an area contaminated with war poisons, the two servicemen did not use personal protective equipment and received life-threatening injuries and required only symptomatic treatment. To what sorting category do the victims belong? What color sorting marks are they marked with?

- A. To I category Red
- B. To the II category Yellow
- B. To III category Green
- D. To IV category Black
- D. To V category Blue

10. Medical sorting is:

A. The process of prioritizing care for patients depending on the complexity of their condition. It effectively distributes care to patients when there are not enough resources to help everyone and immediately

B. Distribution of victims into groups for further referral to medical institutions of a narrow profile

B. Distribution of victims into groups for further medical care at the sorting site

11. Conventionally, the process of providing medical care to the population during emergencies involving numerous victims (emergencies) is divided into stages:

A. Prehospital stage, hospital stage

B. Prehospital stage, hospital stage, stage of clinical examinations

B. Prehospital stage, hospital stage, stage of clinical examinations, rehabilitation stage

12. The purpose of medical sorting:

A. Provide victims and patients with necessary treatment and prevention measures and their subsequent evacuation.

B. Remove victims and patients from the emergency zone to the danger zone

B. To take victims and patients from the emergency zone to the danger zone to medical institutions

13. During the first stage of medical sorting, what is the basic amount of medical care:

A. In adults, check for breathing and, if necessary, restore airway patency;

B. Determine the capillary pulse;

B. Determine the state of consciousness;

D. In children under 8 years to restore airway patency in the absence of breathing perform 5 artificial respirations

14. The duration of the first stage of medical sorting of one victim is not more than:

A. 60 seconds.

B. 2 minutes

B. 5 minutes

15. Depending on the purpose and objectives medical sorting can be:

A. Introductory sorting - performed by rescuers of the SES and the Ministry of Internal Affairs, take out (remove) the wounded from the affected area;

B. Primary medical sorting - the division of victims into groups depending on the severity of the condition and their designation by individual colors;

B. Secondary medical sorting - determining the priority in providing medical care to victims of the "red" group.

D. Evacuation sorting - determining the order of evacuation, the position of the body in space, support, mode of transport and place of hospitalization.

Examination card № "0"

1. Normative and legal bases of civil protection in Ukraine

2. Respiratory diseases in combat

3. Medical sorting, stages of medical sorting

4. Tasks. The fighter has wounds in the area of 4 - 5 ribs on the anterior axillary line.

Wound size is 2.0 x 0.5 cm. "Pink bubbles" come out of the wound cavity while

breathing out. Breathing is difficult and painful. Your initial diagnosis and your actions.

6. Criteria for evaluating the student's work

Methods of control

- Recitation (testing of theoretical knowledge and practical skills).
- Test control.
- Writing a review of scientific literature (reports).
- Preparation of presentations.

Current control. Control of theoretical knowledge and the acquisition of practical skills in practical classes, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum. Assessment of the level of students' training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, monitoring the acquisition of practical skills.

Intermediate control. Checking the possibility of using students for the practical application of theoretical knowledge and practical skills on all topics studied, as well as the results of independent work of students. Carried out in the last lesson on the topic by passing practical skills, testing.

Final control. Students who have attended all lectures, classroom classes, full-time independent work and **scored at least 70 points per semester** in the semester are allowed to take the final control (differential test).

Distribution of points received by students

The student can get a maximum of 120 points for current learning activities. Accordingly, a positive assessment in each seminar can be **from 5.4 to 9.2 points. A score below 5.4 points** means "unsatisfactory", the lesson is not credited and must be practiced in the prescribed manner.

In order to assess learning outcomes, the final control in the form of final control. On the final control the student can get a maximum of **80 points**. Final test is considered "passed" if the student received at least **50 points**.

Assessment of student performance

Task	Maximum grades
Section №1 - 2	
Topic 1	13,3
Topic 2	13.3
Topic 3	13.3
Topic 4	13.3
Topic 5	13.3
Topic 6	13.3
Topic 7	13.3
Topic 8	13.3
Topic 9	13.3
Total	120
Final control	80
Total for subject	200
Section №3 - 4	
Topic 1	8,5
Topic 2	8,5
Topic 3	8,5

Topic 4	8,5
Topic 5	8,5
Topic 6	8,5
Topic 7	8,5
Topic 8	8,5
Topic 9	8,5
Topic 10	8,5
Topic 11	8,5
Topic 12	8,5
Topic 13	8,5
Topic 14	8,5
Total	120
Final control	80
Total for subject	200
Section № 5 - 6	
Topic 1	13,3
Topic 2	13.3
Topic 3	13.3
Topic 4	13.3
Topic 5	13.3
Topic 6	13.3
Topic 7	13.3
Topic 8	13.3
Topic 9	13.3
Total	120
Final control	80
Total for subject	200

Criteria for assessing knowledge

A student's answer is evaluated with a score of 10,5 -12 points per topic and 71-80 points on the test (A on the ECTS scale and 5 on the national scale) if student demonstrates deep knowledges of all theoretical principles and ability to apply theoretical material for practical analysis and has no inaccuracies.

A score of 8,4-10,4 points per topic and 61-70 points on the test (B and C on the ECTS scale and 4 on the national scale) the answer is evaluated if student shows knowledges of all theoretical principles, ability to apply them in practice, but some fundamental inaccuracies are allowed.

A score of 6,4-8.3 points per topic and 50-60 points on the test (D and E on the ECTS scale and 3 on the national scale) the student's answer is evaluated if student knows the main theoretical principles and can use them in practice.

7. Recommended sources of information

7.1. Main

1. Disaster medicine. Military medicine: rivers. annotated bibliogr. show / compiled by: NB Gavrish, VV Khivrenko, IM Lazorenko, LM Dragan. - H., 2018. - 36 p.
2. Selected lectures on military field surgery / Author. Col.: VV Boyko, VM Lisovy, VV Makarov and others; ed. Corresponding Member NAMNU prof. VV Boyka, Corresponding Member NAMNU prof. VM Forest, prof. VV Makarov. - Kharkiv, NTMT, 2018. - 212 p
3. Medicine of emergency situations [text] textbook / BD Khalmuradov, PB Volyansky - K.: Center for Educational Literature, 2016. – 208 p. ISBN 978-617-673-478-9
4. Emergency medicine. Emergency medical care Ivan Zozulya, Valentina Bobrova, Georgy Roshchin. Medicine. Ukrainian. 2017
5. Emergency medical care for the injured at the hospital stage: a textbook / [V.O. Крилюк, С.О. Гурев, А.А. Hudyma and others] - Kyiv. - 2016. - 400 p.
6. Emergency medical care (selected aspects): textbook / All-Ukrainian public organization "All-Ukrainian Council of Resuscitation (Resuscitation) and Emergency Medical Care". - Донецьк: Лондок: XXI, 2014. - 320 с.
7. Emergency medical care (to hospital protocols): manual // ed. Professor OV Bogomolets, Professor GG Roshchin. - Kyiv. Yustan - 2016. - 212 p.
8. Organization of medical support of troops: Textbook. for students. higher honey. lock Education of Ukraine III - IV levels of accreditation / edited by Professor Badyuk MI - K.: «МП Леся», 2014. - 430 с.
9. Civil protection: a textbook for students. higher education institutions of the IV level of accreditation. / PV Oliynyk, ST Omelchuk, VV Chaplyk [etc.]. - Vinnytsia: Nova Kniga, 2013. - 328 p. : il.

7.1. Additional

1. Vasiychuk VO Fundamentals of civil protection: textbook. way. - Lviv, 2010. - 384 p.
2. Military medical training / Edited by Professor MI Badyuk. - K.: «МП Леся», 2007.- 482 с.
3. Disaster medicine. Textbook / Ed. prof. I.B. Cochlin. - K.: "Health". - 2001. - 290 p.
4. Basics of survival: measures to ensure life in an autonomous existence in emergencies. Tutorial. UCZU, UNPCEMD and MI of the Ministry of Health of Ukraine, National Medical Academy of Postgraduate Education named after P.L. Shchupyka [Gurev SO, Myronets SM, Roshchin GN etc.] - K.: 2009. - 209 p.
5. Labor protection and safety of the population in emergencies: Textbook / ed. prof. I.B. Cochlin. - K.: Здоров'я, 2005. - 250 с.
6. Rusalovsky AV Civil protection: textbook. way. / for science. ed. Zaporozhets OI - K.: AMY, 2008. - 250 с.

7.2. Information resources on the Internet

1. Website of the Verkhovna Rada of Ukraine: Access mode: [http // zakon.rada.gov.ua /](http://zakon.rada.gov.ua/).
2. Website of the State Service of Ukraine for Emergencies. Access mode: <http://www.dsns.gov.ua/>.
3. Website of the Ministry of Health of Ukraine: Access mode: <http://www.moz.gov.ua/>.
4. Information and legal portal "Laws of Ukraine": Access mode: <http://nazakon.com>.
5. On approval of the rules of the Model staffing standards of the center of primary health care: Order of the Ministry of Health of Ukraine dated 23.02.2012 №129 - Access mode: <http://www.moz.gov.ua/na/portal/hsccekomlaw/>.
6. European Health for All Database, Copenhagen: WHO / Europe. - // Access mode: <http://www.euro.who.inf>.
7. Resolution of the Cabinet of Ministers "On approval of the Regulations on the organization of notification and communication in emergencies" // Access mode: <http://zakon2.rada.gov.ua/laws/show>