

DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Department: Propaedeutics of Internal Medicine

**APPROVED**

First Vice-Rector on  
Scientific and Pedagogical Work  
Associate Professor Iryna  
SOLONYNKO



*[Handwritten signature]*

«10» 10

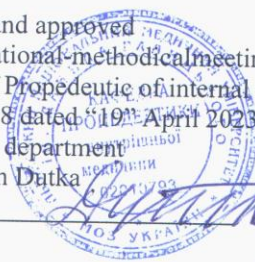
2023 y.

**DISCIPLINE PROGRAM**

**VB 1.36 "First medical aid"**

**Second (master's) level of higher education**  
**Field of knowledge 22 "Healthcare"**  
**Specialty 222 "Medicine"**  
**Faculty, year: Medical, 2<sup>nd</sup> year**

Discussed and approved  
at the educational-methodical meeting of the De-  
partment of Propedeutic of internal medicine  
Minutes № 8 dated "19" April 2023  
Head of the department  
Prof. Roman Dutka



*[Handwritten signature]*

Approved by the  
Profiled Methodical Board on Therapeutic  
Disciplines  
Minutes № 3 dated "04" May 2023 y.  
Head of the Board  
Prof. O. M. Radchenko

*[Handwritten signature]*

*[Handwritten mark]*

The discipline program “Propaedeutics to internal medicine” was developed and imported at the Department of Propaedeutics of Internal Medicine of DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY for 2<sup>nd</sup> year students of Medical faculty by the Specialty 222 "Medicine".

**Changes and additions to the Working Program of the academic discipline  
"Propaedeutics to internal medicine" for 2023-2024**

№	Content changes (additions)	Date and No. of the minutes of the department meeting	Notes
1.	No changes and additions to the Working Program of the academic discipline "Propaedeutics to internal medicine" for 2023-2024, were made.	19. 04.2023 y., Minutes №8	Approved by profiled methodical board of therapeutic disciplines, minutes №3 dated 04 May 2023.

Program developers:

Bevz O.V., PhD in Medical Sciences, Assoc. Professor at the Department of Propedeutic of internal medicine;  
Novosad A.B., PhD in Medical Sciences, Assoc. Professor at the Department of Propedeutic of internal medicine;  
Ushchuk L.V., PhD in Medical Sciences, Assoc. Professor of the Department of Propedeutic of internal medicine;  
Abrahamovych K.J., PhD in Medical Sciences, Assoc. Professor at the department of Propedeutic of internal medicine.

REVIEWER:

Zinchuk O.M., DSc in Medical Sciences, Professor, Head at the department of Infectious Diseases.

Head of the department of Propaedeutics  
of internal medicine, DSc in Medical Sciences, Prof.

R. J. Dutka

## INTRODUCTION

### Discipline program "First medical aid" (elective course) developed in accordance with the Standard of higher education of the second (master's) level fields of knowledge 22 "Health care" speciality 222 "Medicine" of the Master of Medicine educational program

#### Description of the academic discipline (abstract)

The problem of providing emergency aid in complex modern conditions, when the number of disasters and military conflicts, accompanied by various damages: burns, injuries, poisoning, is rapidly increasing, is one of the extremely urgent tasks of modern society. A characteristic feature of the modern world is increased psycho-emotional stress due to the stressful rhythm of life, an increase in the number of cases of extreme stress pathology, in particular myocardial infarction, breathing disorders, heart rhythm and conduction. Timely and correct provision of first aid makes it possible to quickly navigate a difficult situation, avoid wasting time, and carry out a certain amount of necessary measures that will help save a person's life.

The study of the academic discipline "First medical aid" (elective course) is based on the knowledge acquired by students during the study of anatomy, biology, physiology and other basic disciplines. Explanation of some topics is difficult, as it requires a deeper understanding by students of aspects of the pathogenesis of many diseases, understanding and quick analysis and correct interpretation of symptoms and syndromes. Therefore, algorithms and protocols for providing emergency care approved by the Ministry of Health of Ukraine are widely used in the educational process for studying first aid for students.

"First medical aid" is an optional discipline for students of specialty 222 "Medicine".

The educational process is organized according to the requirements of the European credit-transfer system.

The discipline has the following structure

Structure of educational discipline	Number of hours, from them			Year of study	Kind of control	
	Total hours / credit	Auditory				SWS
		Lectures	Practical sessions			
Hours / credit	90/3	12	18	60	II	Credit

3 ECTS credits / 90 hours are allocated for the study of the academic discipline.

**The subject of study** of the educational discipline "First medical aid" (elective course) is a complex of theoretical and practical questions aimed at the student's mastery of the basic methods of providing first medical aid to a patient in the internal medicine clinic.

**Interdisciplinary connections:** normal anatomy; normal physiology; topographical anatomy; pathological anatomy; pathological physiology; medical psychology.

#### 1. The purpose and tasks of the educational discipline

1.1. The purpose of teaching the academic discipline "First medical aid" (discipline of choice) is to master the basic theoretical principles of pre-medical care, to master the practical skills of providing emergency medical care to victims at the scene of the incident and on the way to the hospital, to form the basis of clinical thinking in the student and to acquire further professional skills in compliance with the principles of medical ethics and deontology.

The purpose of studying first aid is to master the knowledge, skills, and abilities to ensure full and timely cardiopulmonary resuscitation, the correct provision of emergency aid in case of damage by some factors of the external environment, poisoning, animal bites, rabies patients, poisonous snakes, insects, pain in the chest, abdomen, helping patients with convulsive syndrome and during an attack of shortness of breath in order to save their lives.

This task is concretized by solving individual tasks in the learning process, with practice and learning of algorithms for performing various medical manipulations and resuscitation techniques.

1.2. The main tasks of studying the discipline "First medical aid" are:

- The student's mastery of the theoretical knowledge necessary to provide emergency care.
- Mastering practical techniques and methods of providing first aid in case of emergencies.
- Formation of students' moral-ethical and deontological qualities during professional communication with patients.

**1.3. Competences** and learning outcomes, the formation of which contributes to the discipline.

According to the requirements of the Higher Education Standard, the discipline ensures that students acquire the following competencies:

**Integral competence**      The ability to solve complex problems, including those of a research and innovation nature in the field of medicine. Ability to continue learning with a high degree of autonomy.

- General (CG):

**CG.1** Ability of abstract thinking, analysis and synthesis.

**GC.2** Ability to learn and master modern knowledge.

**GC.3** Ability to apply knowledge in practical situations.

**GC.4** Knowledge and understanding of the subject area and understanding professional activity.

**GC.5** Ability to adapt and act in a new situation.

**GC.6** Ability to make informed decisions.

**GC.7** Ability to work in a team.

**GC.8** Ability to interpersonal interaction.

**GC.9** Ability to communicate in a foreign language.

**GC.10** Ability to use information and communication technologies.

**GC.11** Ability to search, process and analyze information from various sources.

**GC.12** Determination and persistence in relation to assigned tasks and assumed responsibilities.

**GC.13** Awareness of equal opportunities and gender issues.

**GC.14** The ability to realize one's rights and responsibilities as a member of society, to realize the values of a civil (free democratic) society and the need for its sustainable development, the rule of law, the rights and freedoms of a person and a citizen in Ukraine.

**GC.15** The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle.

- Special (FC):

**FC.1** Ability to collect medical information about the patient and analyze clinical data.

**FC.7** Ability to diagnose emergency conditions.

**FC.8** Ability to determine tactics and provide emergency medical care.

**FC.9** Ability to carry out medical evacuation measures.

**FC.10** Ability to perform medical manipulations.

**FC.11** Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.

**FC.13** Ability to carry out sanitary and hygienic and preventive measures.

**FC.14** Ability to plan and carry out preventive and anti-epidemic measures regarding infectious diseases.

**FC.16** Ability to maintain medical documentation, including electronic forms.

**FC.17** Ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population.

**FC.24** Compliance with ethical principles when working with patients and laboratory animals.

**FC.25** Observance of professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.

- *special subject:*

- Determine the content of first aid and its role in the structure of general therapeutic measures.
- Demonstrate mastery of the skills of observing the work regime in a medical institution and ensuring the sanitary and hygienic regime of the main subdivisions of the hospital.
- Demonstrate mastery of the skills of determining the main indicators of the activity of the cardiovascular and respiratory systems (pulse, blood pressure, breathing) and providing first aid to patients with disorders of these systems.
- Explain the mechanisms of influence of various physical and chemical factors on the body as a whole and the cardiovascular and respiratory systems in particular.
- Demonstrate the provision of first aid for burns, frostbite, heatstroke, sunstroke, general hypothermia.
- Demonstrate first aid for drowning, suffocation, electrocution and lightning.
- Demonstrate mastery of basic techniques of resuscitation measures.
- Demonstrate mastery of basic consciousness assessment skills.
- Explain the possible causes of unconsciousness, the principles of emergency first aid.

- Demonstrate the provision of first aid in case of fainting, collapse, convulsions.
- Explain the mechanisms of the effects of different types of poisons on the human body.
- Demonstrate first aid for carbon monoxide poisoning, animal bites, poisonous snakes and insects.
- Demonstrate first aid for an attack of shortness of breath, cough, chest pain, abdominal pain.
- Form goals and determine the structure of personal activity.
- To acquire practical skills of sanitary and educational work.
- To comply with the requirements of ethics, bioethics and medical deontology in their professional activities
- Follow a healthy lifestyle, use self-regulation and self-control techniques.
- To be aware of and be guided in one's activities by civil rights, freedoms and duties, to raise general educational and cultural levels.
- To organize the necessary level of personal safety and the persons being cared for in the event of dangerous situations in the individual field of activity.

Detailing of competencies in accordance with the NQF descriptors in the form of the "Competence Matrix".

### COMPETENCE MATRIX

<b>№</b>	<b>Competence</b>	<b>Knowledge</b>	<b>Skills</b>	<b>Communication</b>	<b>Autonomy and responsibility</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
<b>General competence</b>					
KZ.1	Ability to abstract thinking, analysis and synthesis.	Know methods of analysis, synthesis and further modern education.	Be able to analyze information, make informed decisions, be able to acquire modern knowledge.	Establish appropriate connections for achieving goals.	To be responsible for the timely acquisition of modern ones of knowledge
KZ.2	Ability to learn and master modern knowledge.				
KZ.3	Ability to apply knowledge in practical situations.	Have specialized conceptual knowledge acquired in the learning process.	To be able to solve complex tasks and problems that arise in professional activity.	Clear and unambiguous presentation of one's own conclusions, knowledge and explanations that justify them to specialists and non-specialists.	To be responsible for decision-making in difficult conditions
KZ.4	Knowledge and understanding of the subject area and understanding of professional activity.	Have in-depth knowledge of the structure of professional activity.	To be able to carry out professional activities that require updating and integration of knowledge	The ability to effectively form a communication strategy in professional activities.	To be responsible for professional development, the ability for further professional training at a high level autonomy.
KZ5	Ability to adapt and act in a new situation.	Know the types and methods of adaptation, the principles of action in a new situation.	Be able to apply means of self-regulation, to be able to adapt to new situations	Establish appropriate connections to achieve the result.	It is timely to bear responsibility use of self-regulation methods

			(circumstances) of life and activity.		
KZ.6	Ability to make informed decisions	To know communication tactics and strategies, laws and methods of communicative behavior.	Be able to make informed decisions, choose communication methods and strategies to ensure effective teamwork.	Be able to make informed decisions, choose communication methods and strategies to ensure effective teamwork.	To be responsible for the choice and tactics of the method of communication .
KZ.7	Ability to work in a team.				
KZ.8	Interpersonal skills.				
KZ.9	Ability to communicate in a foreign language.	Have perfect knowledge of the state language and communicate in a foreign language	To be able to apply knowledge of the state language, both orally and in writing, to communicate in a foreign language	Use it in professional and business communication and when preparing documents in the state language, to communicate in a foreign language.	To be responsible for fluency in the state language, for the development of professional knowledge, to communicate in a foreign language.
KZ.10	Ability to use information and communication technologies.	Have deep knowledge in the field of information and communication technologies used in professional activities.	To be able to use information and communication technologies in a professional field that requires updating and integration of knowledge.	Use information and communication technologies in professional activities.	To be responsible for the development of professional knowledge and skills.
KZ.11	Ability to search, process and analyze information from various sources.	Have knowledge in the field of information and communication technologies to process and analyze information from various sources.	Be able to use knowledge in the field of information and communication technologies to process and analyze information from various sources.	Use knowledge to analyze and find sources of information	Be responsible for the reliability of information.
KZ.12	Determination and persistence in relation to assigned tasks and assumed responsibilities.	Know the responsibilities and ways of performing assigned tasks.	To be able to determine the goal and task, to be persistent and conscientious in the performance of duties.	Establish interpersonal relationships for effective performance of tasks and responsibilities.	To be responsible for the high-quality performance of assigned tasks.
KZ.13	Awareness of equal opportunities and gender issues (motives).	Know your social and community rights and responsibilities and be aware of equal opportunities and gender issues.	To form one's civic consciousness, to be able to act in accordance with it.	The ability to convey one's public and social position.	Be responsible for your civic position and activities.
KZ.14	The ability to act on the basis of ethical considerations				
KZ.15	The ability to preserve and	Know and store, multiply	Formulate one's moral, cultural,	The ability to convey, preserve	Be responsible for your moral,

	multiply moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technologies, to use various types and forms of motor activity for active recreation and leading a healthy lifestyle	moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area.	scientific values and achievements of society on the basis of understanding the history and patterns of development of the subject area.	and multiply moral, cultural, scientific values.	cultural, scientific values.
--	--	--	--	--	------------------------------

*Special competences*

FK.1	Ability to collect medical information about the patient and analyze clinical data.	Know the peculiarities of questioning patients: detailing complaints, medical and life history.	To be able to collect the patient's complaints, medical history, life history, to be able to detect signs of life and death.	The ability to effectively form a communication strategy in communication with patients and their relatives.	To be responsible for the choice and tactics of the method of communication. Be responsible for using the results of the interview with the patient according to the standard scheme of questioning the patient.
FK.7	Ability to diagnose emergency conditions.	Signs and clinical signs of emergency conditions	Be able to diagnose emergency conditions	Ability to recognize emergency situations in time	Be responsible for recognizing emergency situations
FK.8	Ability to determine tactics and provide emergency medical care.	Know the basic principles of providing medical care	Be able to provide emergency medical care	Ability to provide emergency medical care	Be responsible for providing emergency care
FK.9	Ability to carry out medical evacuation measures	Know the principles of medical evacuation measures at the pre-hospital stage and in	Be able to carry out treatment and evacuation measures in conditions at the pre-hospital stage and in the conditions of a	The ability to carry out treatment and evacuation measures at the pre-hospital stage and in the conditions of a	Be responsible for the effectiveness of medical evacuation measures at the pre-hospital stage and in the

		hospital conditions	therapeutic hospital	therapeutic hospital	conditions of a therapeutic hospital
FK.10	Ability to perform medical manipulations.	Know the principles of first aid at the pre-hospital stage, at home, or in the conditions of a medical institution	Be able to provide first aid at the pre-hospital stage, at home, or in the conditions of a medical institution	The ability to use knowledge about the human body, its organs and systems, adhering to relevant ethical and legal norms, by making an informed decision and using standard methods.	To be responsible for the implementation of the basic algorithms of providing first aid.
FK.11	Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information, taking into account aspects of social and ethical responsibility.	Know methods of solving medical problems in new or unfamiliar environments, taking into account aspects of social and ethical responsibility.	Be able to solve medical problems in new or unfamiliar environments, taking into account aspects of social and ethical responsibility.	Have the ability to solve medical problems in new or unfamiliar environments, working into aspects of social and ethical responsibility.	Be responsible for solving medical problems in new or unfamiliar environments, taking into account aspects of social and ethical responsibility.
FK.13	Ability to carry out sanitary and hygienic and preventive measures.	Know the principles of assessing the patient's health, the principles of forming groups of patients subject to preventive measures	To be able to carry out anti-epidemic and preventive measures, in the conditions of a health care institution, its therapeutic department, based on data on the patient's health, using existing methods, within the scope of primary health care for the population, regarding: the organization of rational nutrition ; regime of work and rest; primary and secondary prevention of diseases; vaccine prophylaxis	Ability to effectively communicate the basics to patients and their relatives: <ul style="list-style-type: none"> <li>• □ sanitary and educational measures to prevent the occurrence infectious and non-infectious diseases, injuries and propaganda a healthy lifestyle; organization of rational nutrition, safe social household conditions; regime of work and rest.</li> </ul>	Be responsible for the selection and tactics of carrying out sanitary and hygienic and preventive measures
FK.14	Ability to plan and carry out preventive and anti-epidemic	Ability to plan and carry out preventive and	Be able to plan measures to prevent the spread	To establish connections in the team to carry out	To be responsible for the selection



	measures for some infectious diseases.	anti-epidemic measures for some infectious diseases.	of infectious diseases in the conditions of a health care institution, its therapeutic department, use existing preventive and anti-epidemic methods.	effective primary anti-epidemic measures in the center of the infectious disease.	and tactics of sanitary-hygienic and anti-epidemic measures
FK.16	Ability to fill out medical documentation, including electronic forms	Know general information about the main types of medical documentation regarding the patient, population contingent (ambulatory/inpatient card, medical history, sanatorium-resort card, official registration documents of medical doctor-prof. institutions)	To be able to fill out and maintain medical documentation regarding the patient and population contingent, using standard technology, on the basis of regulatory documents.	Establish interpersonal relationships for effective medical record keeping	To be responsible for the high-quality completion and maintenance of medical documentation.
FK.17	The ability to assess the impact of the environment, socio-economic and biological determinants on the state of health of an individual, family, population.	To know the results of the influence of the environment, socio-economic and biological determinants on the state of health of the individual, family, population.	Be able to assess the impact of the environment, socio-economic and biological determinants on the health of an individual, family, and population.	To determine the risks of the influence of the environment, socio-economic and biological determinants on the state of health of the individual, family, population.	Be responsible for the correct assessment of the risks of the impact of the environment, socio-economic and biological determinants on the state of health of the individual, family, population.
FK.24	Adherence to ethical principles when working with patients and laboratory animals.	Adherence is an essential principle for working with patients and laboratory animals.	Be able to adhere to ethical principles when working with patients and laboratory animals.	Ability to adhere to ethical principles when working with patients and laboratory animals.	Bear responsibility for non-observance of ethical principles when working with patients and laboratory animals.
FK.25	Observance of professional and academic integrity, bear	To know the principles of professional and academic	To be able to observe professional and academic	The ability to adhere to professional and academic	Bear responsibility for non-observance of

	responsibility for the reliability of the obtained scientific results.	integrity, to be responsible for the reliability of the obtained scientific results.	integrity, bear responsibility for the reliability of the obtained scientific results.	integrity, to bear responsibility for the reliability of the obtained scientific results.	professional and academic integrity, bear responsibility for the reliability of the obtained scientific results.
--	--	--	--	---	--

### Program learning outcomes (PLO)

LO1	To have thorough knowledge of the structure of professional activity. To be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, the ability for further professional training with a high level of autonomy.
LO2	Understanding and knowledge of fundamental and clinical biomedical sciences, at a level sufficient for solving professional tasks in the field of health care.
LO3	Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for conducting research, critical understanding of problems in the field of medicine and related interdisciplinary problems.
LO4	Highlight and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's history, data of the patient's examination, knowledge about the person, his organs and systems, establish a preliminary clinical diagnosis of the disease (according to list 2).
LO5	Collect complaints, anamnesis of life and diseases, evaluate the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies, evaluate information about the diagnosis (according to list 4), taking into account the age of the patient.
LO8	Determine the main clinical syndrome or what causes the severity of the victim's/victim's condition (according to list 3) by making a reasoned decision and assessing 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.
LO14	Determine tactics and provide emergency medical care in emergency situations (according to list 3) in limited time conditions according to existing clinical protocols and treatment standards.
LO15	To organize the provision of medical aid and medical evacuation measures to the population and military personnel in emergency situations and combat operations, including in field conditions.
LO17	Perform medical manipulations (according to list 5) in the conditions of a medical institution, at home or at work based on a previous clinical diagnosis and/or indicators of the patient's condition by making a reasoned decision, observing the relevant ethical and legal norms.
LO21	Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information.
LO24	To organize the necessary level of individual safety (own and the persons they care about) in case of typical dangerous situations in the individual field of activity.
LO25	Understandably and unequivocally communicate own knowledge, conclusions and arguments on health care problems and related issues to specialists and non-specialists.
LO27	Communicate freely in the state language and in English, both orally and in writing to discuss professional activities, research and projects.

Learning outcomes:

Integrative final program learning outcomes, the formation of which is facilitated by the educational discipline: acquisition of theoretical knowledge, practical techniques and methods of providing first aid in case of emergencies. Formation of students' moral-ethical and deontological qualities during professional communication with patients.

### 3. Structure and content of the academic discipline "First aid" (discipline of choice).

Topic	Practical classes	Lecture	Self-study	Individual work
1	2	3	4	5
<p><b>Topic 1.</b> Signs of life and death. Artificial respiration and indirect heart massage.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The process of dying of an organism. General concepts of terminal states: preagonal state, terminal pause, agony, clinical death.</li> <li><input type="checkbox"/> Signs and diagnosis of social and biological death.</li> <li><input type="checkbox"/> General rules of cardiopulmonary resuscitation.</li> <li><input type="checkbox"/> CPR technique.</li> <li><input type="checkbox"/> Indications and contraindications for CPR. CPR algorithms.</li> <li><input type="checkbox"/> CPR effectiveness criteria.</li> <li><input type="checkbox"/> Complications and their prevention.</li> </ul> <p><b>Topic 2.</b> Providing assistance for burns, frostbite, heat or sunstroke, general hypothermia. Providing first aid for drowning, suffocation, electric shock.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Concept of thermal, chemical and radiation burns, and frostbite.</li> <li><input type="checkbox"/> Stages of burns and frostbite, their characteristics.</li> <li><input type="checkbox"/> The main clinical signs and principles of care for general hypothermia.</li> <li><input type="checkbox"/> Determining the degree of damage and the area of a burn, frostbite (the rule of "palms", the rule of "nines"). Determining the health prognosis of patients with burns and frostbite depending on the degree and area of the burn or frostbite. First aid.</li> <li><input type="checkbox"/> Causes and mechanisms of development of solar and heat stroke. Conditions that contribute to overheating of the body. The main clinical signs of sunstroke and heat stroke. Basic principles of emergency care.</li> <li><input type="checkbox"/> Drowning (primary and secondary), its signs. Peculiarities of the position of the victim in case of evacuation from the water. Medical assistance.</li> <li><input type="checkbox"/> Asphyxia and its varieties: obturation, strangulation, stenosing, compression, nerve-paralytic, central. Principles of emergency care.</li> <li><input type="checkbox"/> Concept of electric injury. Injury by technical electric current and lightning. Peculiarities of providing medical assistance in case of electric shock. Algorithm for providing first aid in case of electric shock and lightning.</li> </ul> <p><b>Topic 3.</b> Assessment of the state of consciousness. The concept of coma, principles of emergency medical care.</p> <p>Causes of unconsciousness.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Basic criteria of clear and impaired consciousness.</li> <li><input type="checkbox"/> Types of suppression of consciousness: stupor, sopor, coma.</li> <li><input type="checkbox"/> Comas: types, clinical symptoms.</li> <li><input type="checkbox"/> Concept of delusions and hallucinations.</li> <li><input type="checkbox"/> Principles of emergency care in case of loss of consciousness.</li> </ul> <p><b>Topic 4.</b> Determination and assessment of blood pressure, pulse, respiratory rate. The main</p>	2	2		

<p>causes of hemodynamic disorders, concepts of numbness, collapse, shock. Principles of emergency care.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The concept of blood pressure. Rules for measuring blood pressure. First medical aid for lowering and increasing blood pressure.</li> <li><input type="checkbox"/> Concept of pulse. The main characteristics of the pulse: rhythm, frequency, tension, filling, size and shape.</li> <li><input type="checkbox"/> Estimation of the frequency of respiratory movements. Basic concepts of breathing disorders: accelerated breathing, slowed breathing.</li> <li><input type="checkbox"/> Grinding: main causes, clinical symptoms. First aid in case of suffocation.</li> <li><input type="checkbox"/> Collapse: main causes, clinical symptoms. Principles of first aid.</li> <li><input type="checkbox"/> Shock: types, main causes, clinical symptoms. Principles of first aid.</li> </ul> <p><b>Topic 5.</b> Acute poisoning: general characteristics of poisons, ways of their entry into the body, principles of first aid.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> The concept of poisoning. Types of poisons. Principles of first aid</li> <li><input type="checkbox"/> Poisoning. Conditions, classification. Ways of entry of poison into the body.</li> <li><input type="checkbox"/> Types of poisons. Nonspecific symptoms of intoxication.</li> <li><input type="checkbox"/> Assessment of the patient's condition - respiratory function, cardiovascular system, consciousness in case of poisoning.</li> <li><input type="checkbox"/> First aid for poisoning: Gastric lavage technique, sorbents, antidote therapy.</li> <li><input type="checkbox"/> First aid for chest pain.</li> </ul>	2	2	
<p><b>Topic 6.</b> Emergency medical care during an attack of dysentery, cough. Emergency medical care in the presence of chest pain, hypertensive crisis.</p> <ul style="list-style-type: none"> <li>- The main causes of the pathology of shortness of breath. Types of shortness of breath.</li> <li>- First medical aid for an attack of bronchial asthma.</li> <li>- First medical aid for cardiac asthma.</li> <li>- The diagnostic value of different cough variants. First aid for cough.</li> <li>- The main causes of pain in the chest.</li> <li>- The main clinical signs of an attack of angina pectoris, myocardial infarction, pneumothorax. First aid.</li> <li>- Main clinical signs of hypertensive crisis, first aid.</li> </ul> <p><b>Topic 7.</b> Emergency medical care for insect and snake bites. The concept of anaphylactic shock. Basic principles of emergency care.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Snake bites with different types of venom: hemolytic and neurotoxic, main clinical manifestations.</li> <li><input type="checkbox"/> Principles of emergency first aid for snake bites.</li> </ul>	2	2	

<p><input type="checkbox"/> Insect bites: bees, wasps, hornets, main clinical manifestations.</p> <p><input type="checkbox"/> Principles of first aid for insect bites.</p> <p><b>Topic 8.</b> Emergency care for abdominal pain, gastrointestinal bleeding.</p> <p><input type="checkbox"/> Acute diseases of the abdominal cavity: acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernias, intestinal obstruction. Causes of appearance, preliminary diagnosis, first medical aid.</p> <p><input type="checkbox"/> Mistakes in first aid for abdominal pain.</p> <p><input type="checkbox"/> Gastrointestinal bleeding: causes, clinical symptoms, first aid.</p> <p><b>Topic 9.</b> Peculiarities of providing first aid in combat conditions. Prolonged compression syndrome.</p> <p><input type="checkbox"/> The concept of prolonged compression syndrome.</p> <p><input type="checkbox"/> Course periods, characteristic clinical signs.</p> <p><input type="checkbox"/> First aid measures.</p>	2			
	2			
	2			

	2	2		
<b>Total hours 90/3 credits ECTS</b>	18	12	60	

### **Content of the educational discipline "First medical aid"**

#### **Topic 1. Concept of terminal states. Sudden death and principles of basic resuscitation.**

The process of dying an organism. General concepts of terminal states: preagonal state, terminal pause, agony, clinical death. Signs and diagnosis of social and biological death. General rules of cardiopulmonary resuscitation. CPR technique. Indications and contraindications for CPR. CPR algorithms. CPR effectiveness criteria. Complications and their prevention.

#### **Topic 2. Emergency conditions of exogenous genesis: drowning, suffocation, electric shock, chemical burns, thermal and cold trauma.**

Drowning (primary and secondary), its signs. Peculiarities of the position of the victim in case of evacuation from the water. Medical assistance. Asphyxia and its varieties: obturation, strangulation, stenosing, compression, nerve-paralytic, central. Principles of emergency care.

Concept of electric injury. Injury by technical electric current and lightning. Peculiarities of providing medical assistance in case of electric shock. Algorithm for providing first aid in case of electric shock and lightning.

The concept of thermal, chemical and radiation burns, and frostbite. Stages of burns and frostbite, their characteristics. The main clinical signs and principles of assistance with general hypothermia. Determining the degree of damage and the area of a burn, frostbite (the rule of "palms", the rule of "nines"). Determining the health prognosis of patients with burns and frostbite depending on the degree and area of the burn or frostbite. First aid.

Causes and mechanisms of the development of sunstroke and heat stroke. Conditions that contribute to overheating of the body. The main clinical signs of sunstroke and heat stroke. Basic principles of emergency care.

#### **Topic 3. Assessment of the state of consciousness. The concept of coma, principles of emergency medical care.**

Causes of unconsciousness. The main criteria of clear and impaired consciousness. Types of suppression of consciousness: stupor, sopor, coma. Types of coma, first aid. The concept of delusions and hallucinations. Principles of emergency care in case of loss of consciousness.

#### **Topic 4. Determination and assessment of blood pressure, pulse, respiratory rate. The main causes of hemodynamic disorders, concepts of numbness, collapse, shock. Principles of emergency care.**

The concept of blood pressure. Rules for measuring blood pressure. First medical aid for lowering and increasing blood pressure.

Concept of pulse. The main characteristics of the pulse: rhythm, frequency, tension, filling, size and shape.

Estimation of the frequency of respiratory movements. Basic concepts of breathing disorders: accelerated breathing, slowed breathing.

Grinding: main causes, clinical symptoms. First aid for suffocation. Collapse: main causes, clinical symptoms. Principles of first aid. Shock: types, main causes, clinical symptoms. Principles of first aid.

#### **Topic 5. Acute poisoning: general characteristics of poisons, ways of their entry into the body, principles of first aid.**

Poisoning. Conditions, classification. Ways of entry of poison into the body. Types of poisons. Nonspecific symptoms of intoxication. Assessment of the patient's condition – respiratory function, cardiovascular system, consciousness in case of poisoning. First aid for poisoning: Gastric lavage technique, sorbents, antidote therapy.

#### **Topic 6. Emergency medical care during an attack of dysentery, cough. Emergency medical care in the presence of chest pain, hypertensive crisis.**

The main causes of pain in the chest. The main clinical signs of an attack of angina pectoris, myocardial infarction, pneumothorax. First aid. The main causes of the pathology of shortness of breath. Types of shortness of breath. First aid for an attack of bronchial asthma. First aid for cardiac asthma.

The diagnostic value of different types of cough. First aid for cough.

Main clinical signs of hypertensive crisis, first aid.

**Topic 7. Emergency medical care for insect and snake bites. The concept of anaphylactic shock. Basic principles of emergency care.**

Snake bites with different types of venom: hemolytic and neurotoxic, the main clinical manifestations. Principles of emergency medical care.

Insect bites: bees, wasps, hornets, main clinical manifestations. Principles of emergency care.

Anaphylactic shock: causes, clinical symptoms, principles of emergency care.

**Topic 8. Emergency care for abdominal pain, gastrointestinal bleeding.**

Acute diseases of the abdominal cavity: acute appendicitis, cholecystitis, pancreatitis, perforated ulcer of the stomach and duodenum, pinched hernias, intestinal obstruction. Causes of appearance, preliminary diagnosis, first medical aid. First aid mistakes.

Gastrointestinal bleeding: causes, clinical symptoms, first aid.

**Topic 9. Peculiarities of providing first aid in combat conditions. Prolonged compression syndrome.**

Concept of prolonged compression syndrome, periods of course, characteristic clinical signs. First aid measures.

**Classroom work – 20%, Self-study – 66.7%**

#### 4. THEMATIC PLAN OF LECTURES

##### Elective course

№	Topic	Number of hours
▪	Concept of terminal states. Sudden death and principles of basic resuscitation.	2
▪	First aid for some emergency situations: burns, frostbite, heat or sunstroke, general hypothermia, drowning, suffocation, electric shock and lightning.	2
▪	Basic indicators of vital signs: blood pressure, pulse, breathing rate. Assessment of the state of consciousness. Possible causes of unconsciousness, principles of emergency first aid. Fainting, collapse - principles of emergency care. The concept of Seizures, first aid.	2
▪	The concept of poisoning. Types of poisons. Principles of first aid. Emergency aid for carbon monoxide poisoning and some household poisonings. Bites of animals with rabies, snake bite and insects.	2
▪	First medical aid for an attack of shortness of breath, cough, chest pain, abdominal pain.	2
▪	Peculiarities of providing first aid in combat conditions (Tactical medicine). Crush syndrome. Bleeding in combat conditions. Methods of stopping external bleeding.	2
<b>Together:</b>		<b>12</b>

#### 5. THEMATIC PLAN OF PRACTICAL CLASSES

##### Elective course

№	Topic	Number of hours
▪	Concept of conditions. Sudden death and principles of basic resuscitation.	2
▪	Emergency conditions of exogenous genesis: drowning, suffocation, electric shock, chemical burns, thermal and cold trauma.	2
▪	Assessment of the state of consciousness. The concept of coma, principles of emergency medical care.	2

▪	Determination and assessment of blood pressure, pulse, respiratory rate. The main causes of hemodynamic disorders, concepts of fainting, collapse, shock. Principles of emergency care.	2
▪	Acute poisoning: general characteristics of poisons, ways of their entry into the body, principles of first aid.	2
▪	Emergency medical care during an attack of shortness of breath, cough. Emergency medical care in the presence of chest pain, hypertensive crisis.	2
▪	Emergency medical care for insect and snake bites. The concept of anaphylactic shock. Basic principles of emergency care.	2
▪	Emergency care for abdominal pain, gastrointestinal bleeding.	2
▪	Peculiarities of providing first aid in combat conditions. Crush syndrome.	2
<b>Together:</b>		<b>18</b>

## 6. THEMATIC PLAN OF SELF WORK

### Elective course

№	Topic	Number of hours
▪	Organizational principles of first aid. Concept of paramedicine. Basics of the legislation of Ukraine regarding the rights and duties of a medical worker.	5
▪	Historical aspect of emergency medicine. Evolution of the cardiopulmonary resuscitation algorithm. Features of providing emergency care to patients with infectious diseases, tuberculosis.	5
▪	Burn injury. Classification of burns according to the depth of tissue damage. Thermoinhalation damage to respiratory organs. Signs of poisoning by combustion products. Principles of emergency care.	5
▪	The concept of chemical burns. The mechanism of action of acids and alkalis on the body. Principles of emergency care	5
▪	Bites of poisonous snakes, spiders, insects: clinical signs and emergency care. General and specific measures for snake bites, concepts of specific antidotes. Emergency care for anaphylactic shock.	5
▪	Antidote therapy.	5
▪	Acute mental disorders and crisis states (PTSD - post-traumatic stress disorder). General principles of providing pre-medical care for psycho-neurological disorders. First aid for epilepsy.	5
▪	The concept of renal colic, acute renal failure, acute urinary retention. Principles of emergency care.	5
▪	Principles of providing first aid for some infectious diseases (meningitis, botulism, cholera, diphtheria, AIDS). Algorithm of actions for the prevention of probable HIV infection.	5
▪	The concept of catastrophes and natural disasters. Rules for sorting and transporting victims from the affected area in the event of catastrophes and natural disasters.	5



▪	Types of emergency response. Suicidal states. Emergency measures in the event of a suicide attempt. Methods of behavior with patients with acute mental disorders. Principles of patient immobilization and first aid.	5
▪	Bleeding and blood loss. First aid for bleeding. Concepts and methods of temporary and final stopping of bleeding	5
<b>Together:</b>		<b>60</b>

The main types of independent work of students are:

- Preparation for practical classes.
- Independent study of topics that are not part of the classroom lesson plan.
- Preparation of students on theoretical issues regarding the assessment of the patient's condition.
- Preparation of students to master the algorithms of providing emergency aid for various types of injuries and diseases.
- Students' work in the therapeutic departments of the hospital in order to practice practical skills in emergency care and transportation of patients outside classroom time.
- Performance of individual work.

### **7. Individual tasks.**

According to the student's wish while studying relevant topics, he can perform individual work, which is carried out outside of class time and, upon successful completion, is additionally evaluated by the teacher during class.

The list and content of individual tasks are determined in each individual case:

1. Indirect heart massage.
2. Artificial lung ventilation.
3. Determination of body temperature, pulse rate, breathing, blood pressure.
4. Carrying the sick and injured in the arms with the use of improvised means.
5. Help with fainting.
6. Help with asphyxiation.
7. Help with poisoning.
8. Help with bites of poisonous snakes and insects.
9. Help in case of drowning.
10. The ability to use an individual first-aid kit.
11. Working with literature and other sources of information and preparing an abstract report on methods of preclinical care for various conditions in the internal medicine clinic.

### **8. Teaching methods.**

The following teaching methods are used:

1. Verbal - conversation, explanation, instruction.
2. Visual methods - illustration, demonstration.
3. Practical methods - exercises, providing emergency medical care.

Educational work under the guidance of a teacher is independent work. It includes writing abstracts, independent written works, and control works.

In order to activate the cognitive activity of students and optimize the educational process, the department introduced the use of educational computer videos (author - professor O.G. Yavorskyi), namely: educational manual "Care of patients. Basics of Nursing": an educational DVD-film recommended by the Central Committee of the Ministry of Health of Ukraine as an educational video for students of higher medical educational institutions of the I-IV levels of accreditation (the film is available on the YouTube website).

New methodological techniques are introduced into the educational process taking into account the modern achievements of pedagogical science, qualitative changes in the contingent of students, as well as with the aim of optimizing work with both gifted and underachieving students. Individualized and methodically in-depth work with gifted and underachieving students. Gifted students, if they wish, are engaged in a student scientific club, where topics that interest them are studied in depth. Consultations are organized for students who are unable to keep up. When evaluating current performance in a practical session, along with oral control, written control is used in the form of written answers to standardized questions.

Interactive and problem-oriented teaching methods are widely used, which allows to implement a competent approach to the training of specialists and contributes to the formation of a professionally trained personality.

They are used during practical classes

interactive learning methods. In particular, clinical tasks, the case method, the method of clinical games, brainstorming, etc. are used to practice professional skills. As part of extracurricular training, students use scientific and research methods, the department has a subject scientific club, students are invited to implement interdisciplinary projects as part of their scientific and research activities and report the results at scientific and practical conferences of various levels.

Thus, the organization of the educational process at the department uses methods that most closely correspond to the person-oriented model of education.

### **9. Control methods:.**

Methods and forms of control and evaluation of student performance in the discipline are carried out in accordance with the requirements of the program and Instructions for evaluating students' learning activities in the implementation of the European credit transfer system, approved by the Ministry of Health of Ukraine (letter of the Ministry of Health of Ukraine № 08.01-47 / 10395 from 15.04. 2014).

When assessing students' knowledge, preference is given to standardized methods of control: testing (oral, written, computer), structured written work, structured control of practical skills.

Types of control: current and final.

Form of final control: credit.

Current control is carried out during the training sessions and is aimed at verifying students' learning of the material.

Students' independent work, in addition to traditional pre-class training on theoretical issues, includes work on topics that are not covered by practical classes.

**10. Current control** is carried out during training sessions and is aimed at checking students' assimilation of educational material. The form of ongoing control during training sessions is determined by the working training program of the discipline. Current control is carried out at each practical session. When assessing students' knowledge, preference is given to standardized control methods: testing (oral, written, computer), structured written works, structured control of practical skills.

*10.1. Assessment of current educational activities.* During the assessment of mastery of each topic for the current educational activity, the student is given grades on a 4-point (traditional) scale, taking into account the approved evaluation criteria for the relevant discipline, with subsequent transfer to a multi-point scale. At the same time, all types of work provided by the educational program are taken into account. The student receives a grade for each topic. Forms of assessment of current educational activities are standardized and include control of theoretical and practical training.

Current control is carried out in accordance with specific goals in each practical session. The following means of diagnosing the level of students' training are used for control: computer tests, control of practical skills in providing emergency care.

Control of the performance of independent work, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom session. Methods of current control: oral questioning, written express control, speeches during the discussion of issues in practical classes, testing, control task: *Theoretical knowledge* – written and computer testing, individual survey, interview, content-structured written works. *Practical skills and abilities* - control of the performance of standardized first aid practical skills according to the methodology.

### **11. Form of final control in accordance with the curriculum - credit.**

### **12. Scheme of calculation and distribution of points received by students**

**Assessment of current training activities.** When assessing the mastering of each topic for the current educational activity, the student is awarded a 4-point (traditional) scale, taking into account the approved evaluation criteria for discipline. It takes into account all types of works provided for by the curriculum. The student should get an assessment on each topic. Forms of assessment of current educational activities are standardized and include the control of theoretical and practical training.

**The grade is "excellent"** when the student knows the content of the class and the lecture material in full, illustrating the answers by various examples; provides exhaustively accurate and clear answers

without any inquiries; teaches the material without errors and inaccuracies; freely solves problems and performs practical classes of varying degrees of complexity.

**The grade is "good"** when the student knows the content of the lesson and understands it well, the answers to the questions are presented correctly, consistently and systematically, but they are not exhaustive, although the student answers without any errors for additional questions; solves all the tasks and performs practical classes, attending complexities only in the most difficult cases.

**The grade is "satisfactory"** for the student on the basis of his knowledge of all the content of the class and at a satisfactory level of his understanding. Student is able to solve modified (simplified) tasks by means of guiding questions; solves problems and performs practical skills, experiencing complexity in simple cases; unable to independently give a systematic answer, but the questions directly answered correctly.

**The rating "unsatisfactory"** is displayed in cases when the student's knowledge and skills are not in accordance with the requirements of "satisfactory" assessment.

**Assessment of independent work:**

Assessment of students' independent work, which is envisaged in the topic along with classroom work, is carried out during the current control of the topic at the appropriate classroom session. The evaluation of topics that are made only for independent work and not included in the topics of classroom training is monitored at the final control.

**The final control is** conducted to evaluate the results of the training on the national scale and the ECTS scale.

The control is conducted in the form of a differentiated score from the discipline in the amount of study material determined by the work program and in the timeframe established by the work curriculum, the individual student's curriculum.

**The maximum number of points** that a student can score for the current semester training for admittance to the score is 200 points.

**The minimum number of points** that the student should collect for the current training semester work for admission to the score is 120 points.

The calculation of the number of points is based on the student's assessment of the traditional scale during the study of discipline, by calculating the average arithmetic (CA), rounded up to two decimal places. The resulting value is converted to a score on a multi-scale scale in the following way:

$$X = CA \times 200 / 5$$

For convenience is shown table 1:

**Table 1**

4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала
5	200	4.45	178	3.92	157	3.37	135
4.97	199	4.42	177	3.89	156	3.35	134
4.95	198	4.4	176	3.87	155	3.32	133
4.92	197	4.37	175	3.84	154	3.3	132
4.9	196	4.35	174	3.82	153	3.27	131
4.87	195	4.32	173	3.79	152	3.25	130
4.85	194	4.3	172	3.77	151	3.22	129
4.82	193	4.27	171	3.74	150	3.2	128
4.8	192	4.24	170	3.72	149	3.17	127
4.77	191	4.22	169	3.7	148	3.15	126
4.75	190	4.19	168	3.67	147	3.12	125
4.72	189	4.17	167	3.65	146	3.1	124
4.7	188	4.14	166	3.62	145	3.07	123
4.67	187	4.12	165	3.57	143	3.02	121
4.65	186	4.09	164	3.55	142	3	120
4.62	185	4.07	163	3.52	141	Менше 3	Недос- татньо
4.6	184	4.04	162	3.5	140		
4.57	183	4.02	161	3.47	139		
4.52	181	3.99	160	3.45	138		
4.5	180	3.97	159	3.42	137		
4.47	179	3.94	158	3.4	136		

Score points are independently converted into both ECTS and 4-point scales. The ECTS scores are not converted in to the 4-point scale and vice versa.

Discipline scores for students who have successfully completed the program are converted into a traditional 4-point scale according to the absolute criteria, which are given in the table below:

**Table 2**

<b>Points from discipline</b>	<b>Grade on 4-point scale score</b>
From 170 to 200 points	5
From 140 to 169 points	4
From 139 points to the minimum	3
The number of points that student must collect	2

Points of students studying in one specialty, taking into account the number of points scored from the discipline, are ranked on the ECTS scale as follows (table 2):

**Table 2**

<b>Points ECTS</b>	<b>The statistical indicator</b>
<b>A</b>	<b>The best 10% of students</b>
<b>B</b>	<b>The next 25% of students</b>
<b>C</b>	<b>The next 30% of students</b>
<b>D</b>	<b>The next 25% of students</b>
<b>E</b>	<b>The last 10% of students</b>

The ECTS mark on a traditional scale is not converted because the ECTS scale and the four-point scale are independent.

### **1. METHODOICAL SUPPORT (RECOMMENDED BOOKS) Basic literature**

1. First Aid Manual. 11th Edition. Written and Authorised by the UK's Leading First Aid Providers . 2021
2. Бевз О.В., Ющик Л.В., Новосад А.Б., Гайдук А.Б., Івасівка Р.С. (За ред. проф. Дутки Р.Я.) Методично-навчальний посібник з першої допомоги і елементів медсестринства для студентів I-II курсу медичних факультетів вищих медичних закладів III- IV рівнів акредитації. 2022.- 108 с.
3. Семен Х.О., Ющик Л.В., Бевз О.В., Гайдук А.Б., Рогуля С.С. (за ред. проф. О.Г. Яворського) / Методичні рекомендації з догляду за хворими для студентів II курсу медичних факультетів вищих навчальних закладів III-IV рівнів акредитації. 2022.– 40 с.
4. Лекції / О.В. Бевз. – Львів, 2022.

### **2. RECOMMENDED LITERATURE:**

#### **Main:**

1. Невідкладна медична допомога на догоспітальному етапі [Текст] : навч. посібн. для студ. вищ. навч. заклад. IV р. акред. / В. А. Левченко, І. П. Вакалюк, М. В. Максим'як та ін. ; за ред. В.А. Левченка. - 4 вид., переробл. та доповн. - Івано-Франківськ : Петраш К.Т., 2020. - 612 с.
2. Перша екстрена і тактична медична допомога на догоспітальному етапі [Текст] : навч. посібн. для студ. мед. (фармац.) коледжів, училищ, інститутів медсестринства та університетів / за ред. В.С. Тарасюка. - 3 - є вид., преробл. та доповн. - К. : ВСВ "Медицина", 2019. - 504 с. : іл.
3. Халмурадов, Б. Д. Медицина надзвичайних ситуацій [Текст] : Підручник / Б. Д. Халмурадов, П. Б. Волянський. - К. : Центр учбової літератури, 2021. - 208 с.: іл.
4. Екстрена та невідкладна медична допомога [Текст] : Навчальний посібник для студ.вищ. навч. закл. / За заг. ред. Шкурупія Д.А. /Бодулев О.Ю., Дикий О.М., Могильник А.І., Сонник Є.Г., Шумейко О.Г., Шкурупій Д.А. - Вінниця : Нова Книга, 2017. - 240 с. : іл.
5. Emergency and Urgent medical care [Текст] = Екстрена та невідкладна медична допомога : навч. посібн. для студ. вищ. навч. закл. МОЗ України / за ред. Шкурупія Д.А. / Бодулев О. Ю., Дикий О.М., Могильник А.І./ - Вінниця : Нова книга, 2019. - 200 с. : іл.
6. Долікарська допомога: навч. посіб. / Т. Л. Білоус. – Суми: видавничо-виробниче підприємство «Мрія», 2020. 148 с.
7. Антонов А. Г. Основи медичної допомоги / А. Г. Антонов, А. М. Колесніков, Н. О. Комісарова. Київ: КНТ, 2018. 338 с. (друге, перероблене, доповнене).

8. Догляд за хворими і медична маніпуляційна техніка: навч. посібн. для студ. вищ. мед. навч. заклад. I—III р. акред. /Любов Савка, Людмила Резнікова, Олена Коцар/.- 4 вид., переробл. та доповн. - К. : ВСВ "Медицина", 2018. - 600 с. : іл.
9. Перша долікарська допомога: навч. посібн. для студ. вищ. фарм. навч. закла. та фарм. факульт. вищ. мед. навч. закл. IV р. акред./ Кіт О.М., Ковальчук О.Л., Вардинець І.С./.- Тернопіль, ТДМУ: Укрмедкнига, 2018. – 336 с.
10. Екстрена та невідкладна медична допомога : Підручник для студ. III–VI курсів мед. факульт., лікарів, рятівників, парамед., волонтерів з питань надання сучасних методів екстреної домед. та мед. допом. /Львовкін О.А., Перцов В.І./.- Магнолія, 2021. – 212 с.
11. Андрущенко В.П. Перша долікарська допомога / В.П. Андрущенко, Ю.Ф. Кушта, Д.В. Андрущенко. – Львів. – 2011. – 347 с.
12. Перша долікарська допомога /П.Д. Фомін, Т.Д. Никула, В.О. Мойсеєнко, П.В. Іванов: Підручник /За загальною редакцією П.Д. Фоміна /Національний медичний університет ім. О.О.Богомольця. – Київ: Майстер книг. – 2014. – 616 с.
13. Нетяженко В.З. Догляд за хворими /В.З. Нетяженко, І.М. Щуліпенко, Л.А. Дяківська. – К.: «Здоров'я», 2013. – 592 с.
14. Ковальова О.М. Догляд за хворими (практика) / О.М. Ковальова, В.М. Лісовий, С.І. Шевченко, Т.В. Фролова. – Київ, ВСВ «Медицина». – 2013. – 483 с.
15. Щуліпенко І.М. Загальний та спеціальний догляд за хворими з основами валеології /І.М. Щуліпенко. – К.: «КІЙ», 1998. – 384 с.
16. Семен Х.О., Ющик Л.В., Бевз О.В., Гайдук А.Б., Рогуля С.С. (за ред. проф. О.Г. Яворського) / Методичні рекомендації з догляду за хворими для студентів II курсу медичних факультетів вищих навчальних закладів III-IV рівнів акредитації.2022. – 40 с.
17. Перша медична допомога: Підручник для мед. ВНЗ I – III рів. акрид. – 4-те вид., випр. Затверджено МОЗ /Петриненко Т.В. – К., 2012. – 275 с.
18. 30 невідкладних станів у терапії: Навчальний посібник /За ред. проф.. Ю.М. Мостового. – Київ: Центр ДЗК, 2017 – 128 с.
19. Титов І.І., Волошинський О.В., Глушко Л.В., Пацюк О.І. Алгоритми надання невідкладної допомоги у критичних станах: навчальний посібник / Видання 4-те, доповнене. – Вінниця: НОВА КНИГА,2010. – 292 с.
20. Уніфікований клінічний протокол екстреної медичної допомоги хворим на гострі отруєння, затверджений Наказом МОЗ України № 34 від 15.01.2014 р. 11. Перша екстрена і тактична медична допомога на догоспітальному етапі: навч. посіб. / В.С. Тарасюк, М.В. Матвійчук, І.В. Паламар та ін.; за ред. В.С. Тарасюка. – 3-є вид., переробл. Та допов. – К.: ВСВ "Медицина", 2019. – 504 с.
21. Перша медична допомога: підручник / І.М. Григус, М.Я. Романишин. – Львів: Новий світ-2000, 2019. – 267 с.
22. Ramrakha P.S., Moore K.P. Oxford Handbook of Acute Medicine. – 2010. – P. 222 - 228.

***Additional:***

1. Невідкладні стани: Підруч. для студентів вищ. мед. навч. закл. III-IV рівнів акредитації (за ред. М.С. Регеди, В.Й. Кресюна; ЛДМУ ім. Данила Галицького, Одеський державний медичний університет. – Л.: Магнолія, 2008. – 835 с.
2. Скакун М.П. Невідкладна допомога при гострих отруєннях: Навч. посіб. для студентів вищих медичних закладів III-IV рівнів акредитації /М.П. Скакун; Тернопільський державний медичний університет ім. І.Я. Горбачовського. – 2-е вид., допов. – Т.: ТДМУ: Укрмедкн., 2005. – 243 с.
3. Кіт О.М. Перша долікарська допомога /О.М. Кіт, О.Л. Ковальчук, І.С. Вардинець, А.О. Боб. – Т.:ТДМУ: Укрмедкн., 2008. – 335 с.
4. Перша медична допомога: підручник / Т.В. Петриченко. – 4-те вид., випр. – К.: ВСВ "Медицина", 2015. – 271 с.
5. Невідкладна допомога: короткий виклад і тестові завдання: навчальний посібник / Н.В. Наливайко – Львів: ЛНУ імені Івана Франка, 2012. – 220 с.
6. Перша екстрена і тактична допомога на догоспітальному етапі: навч. посіб. / В.С. Тарасюк, М.В. Матвійчук, І.В. Паламар та ін.; за ред. В.С. Тарасюка. – 3-є вид., переробл. та допов. – К. : ВСВ "Медицина", 2019. – 503 с.