

SYLLABUS

1. General information on the course

Full course name	Urgent and Emergency Care
Full official name of a higher education institution	Sumy State University
Full name of a structural unit	Academic and Research Medical Institute. Кафедра екстреної медичної допомоги та медицини катастроф
Author(s)	Khyzhnia Yaroslava Volodymyrivna
Cycle/higher education level	The Second Level Of Higher Education, National Qualifications Framework Of Ukraine – The 7th Level, QF-LLL – The 7th Level, FQ-EHEA – The Second Cycle
Semester	1 week during the 9th semester
Workload	The scope consists of 2credits ECTS, 60 hours, including 24 hours of work with lecturer (4 hours of lectures, 20 hours of laboratory work), 36 hours of self-study).
Language(s)	Ukrainian, English

2. Place in the study programme

Relation to curriculum	Compulsory course available for study programme "Medicine"
Prerequisites	For successful mastering of discipline the student needs the knowledge received in the course of studying of the following disciplines of general preparation: basic knowledge of biology, anatomy and physiology of the person, pharmacology, hygiene, pathological anatomy, pathological physiology, emergency medicine, therapy, surgery, and other clinical disciplines. integrates with these disciplines
Additional requirements	Krok-1
Restrictions	There are no specific restrictions

3. Aims of the course

Lays the foundations of theoretical knowledge and practical skills in the organization and provision of emergency medical care to patients in emergencies at the pre-hospital and early hospital stages, including during peacetime emergencies

4. Contents

Topic 1 Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient.

The concept of a single system of emergency medical care (EMC) in Ukraine. Responsibilities of healthcare professionals. Organization of the EMD service of Ukraine (structure and tasks). The main tasks, functions, rights and responsibilities of medical staff (doctors of the EMD service, general practitioners - family medicine and others) to provide medical care to the patient (victim) in an emergency. Ethical, deontological and communicative aspects of EMD. Peculiarities of providing emergency medical care at the pre-hospital stage (EMD team, general practitioners - family medicine, clinics), early hospital stage (EMD department of a multidisciplinary hospital) and hospital stage (multidisciplinary departments). Equipment of the EMD field team (medical devices, medicines, special equipment). Providing a family doctor's outpatient clinic and various departments of the hospital to provide EMD. Departure map of the EMD team, the rules of its design. Ergonomic principles in the work of the field team EMD (when working indoors, outdoors), teamwork. Acquaintance with EMD station. Safety instruction. Personal safety of an employee of the EMD team (medical worker) during the provision of emergency medical care (organizational measures, technical means of personal safety). Overview of the scene. Dangerous situations that are possible at the scene, tactics of medical workers.

Topic 2 The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Initial examination.

Primary examination (ABC). Tasks of the initial examination. Technology of the conscious and unconscious patient (stabilization of the head and neck, ensuring patency of the upper respiratory tract, determining the level of consciousness on the AVPU scale, assessment of quality and frequency of respiration, the presence of central and peripheral pulse, its frequency, body temperature, skin color and moisture, capillary filling, control of profuse bleeding). Decision-making on the provision of medical care during the initial examination: imposition of the neck collar, oxygen supply, elimination of life-threatening conditions (elimination of obstructive mechanical asphyxia, cessation of external bleeding, CPR).

Topic 3 The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination.

The purpose of the secondary examination. Patients to be examined quickly from head to toe at the scene. Examination technology (primary examination, assessment of consciousness on the Glasgow scale, examination, palpation of the head, assessment of pupils; examination, palpation of the neck; examination, palpation, percussion, chest auscultation; examination, palpation of the abdomen; determination of pelvic bone stability; examination, palpation lower and upper extremities, areas of the spine). Additional examination methods (electrocardiogram, pulse oximetry, electrocardiography in 12 standard leads, glucometer). Determining the presence of active and passive movements in the extremities, the strength of the muscles of the arms and legs of the patient in consciousness. Collection of anamnesis (complaints, allergies, medications, time of last meal, illness, obtaining data on immunizations against tetanus, alcohol consumption, finding out the circumstances of the lesion).

<p>Topic 4 Modern means of ensuring airway patency and artificial lung ventilation in adults.</p> <p>Causes, diagnosis and treatment of airway obstruction in adults. Ensuring airway patency by throwing the head back while maintaining the jaw, taking Safar. Ensuring airway patency in trauma of the cervical spine (removal of the lower jaw forward). Revision and rehabilitation of the oral cavity by manual and hardware methods. Use of oropharyngeal tube, ventilation of the victim's lungs through a mask using a hand-held device for artificial ventilation (Ambu), oxygen supply. Use of the nasopharyngeal (nasopharyngeal) tube.</p>
<p>Topic 5 Circulatory and respiratory arrest. Technology of providing emergency medical care to adults.</p> <p>The concept of terminal states. Clinical death, its symptoms. Absolute and relative signs of biological death. Causes of inefficient blood circulation. Diagnosis of sudden death. Classification and assessment of heart rate in cardiac arrest. Cardiopulmonary resuscitation technology for ventricular fibrillation, ventricular tachycardia, pulseless electrical activity, asystole in adults according to the protocol of the European Council of Resuscitation. Diagnosis of the causes of cardiac arrest, which can be eliminated during resuscitation. Work in a simulation class.</p>
<p>Topic 6 Emergency medical care for mass injuries</p> <p>Procedure of ambulance crews in the center of mass destruction. Interaction with rescue services, the responsibility of each of them. Organization of a medical sorting zone, a medical care zone (medical point) and a transport zone (evacuation). Primary medical sorting according to the START system. Rules for using sorting bracelets and coupons.</p>
<p>Topic 7 Diagnosis and treatment of emergencies at the scene</p> <p>Diagnosis and treatment at the prehospital stage of acute coronary syndrome, cardiogenic shock, hypertensive crisis, anaphylactic shock, hypothermia, drowning, electric shock, coma of unknown etiology, coma in diabetes mellitus, poisoning by unknown gas, poisoning by unknown substances</p>
<p>Topic 8 Emergency medical care for mechanical injuries</p> <p>Diagnosis and treatment at the prehospital stage of mechanical injuries of the skull, spine, chest, abdominal organs, pelvis and pelvic organs, limbs. Diagnosis and tactics of the visiting team with polytrauma, long-term compression and crushing syndrome, external and internal bleeding, traumatic and hemorrhagic shock, hemo- and pneumothorax. Algorithm for providing emergency medical care to victims of road accidents. Techniques to stop external bleeding. Technique of transport immobilization of different bone segments at the prehospital stage. Chest puncture in severe pneumothorax. Occlusive dressing.</p>
<p>Topic 9 Final modular control</p>

5. Intended learning outcomes of the course

After successful study of the course, the student will be able to:

LO1	Ability to identify and identify leading clinical symptoms and syndromes (according to list 1); according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish the most probable nosological or syndromic preliminary clinical diagnosis of the disease (according to list 2).
LO2	Ability to determine the required list of laboratory and instrumental studies and evaluate their results
LO3	Ability to establish a preliminary and clinical diagnosis of the disease
LO4	Ability to determine the main clinical syndrome or the severity of the victim's condition by making an informed decision and assessing the person's condition under any circumstances (at home, on the street, health care facility, its units), including in conditions of emergency and hostilities, in the field, in conditions of lack of information and limited time
LO5	Ability to determine the tactics of emergency medical care, under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision, based on the main clinical syndrome (severity of the condition) diagnosis of an emergency (list 3) for a limited time with standard schemes based on the principles of evidence-based medicine.
LO6	Ability to diagnose emergencies, determine the tactics of emergency medical care, medical and evacuation measures.
LO7	Ability to perform medical manipulations in a medical institution, at home or at work on the basis of a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision, adhering to the relevant ethical and legal norms

6. Role of the course in the achievement of programme learning outcomes

Programme learning outcomes achieved by the course.

For 222 Medicine:

PO1	To detect and identify the leading clinical symptoms and syndromes (according to the List 1); to establish the most probable nosological or syndromic preliminary clinical diagnosis of diseases (according to the List 2) using standard methods, preliminary data of the patient's anamnesis, patient's examination data, and knowledge about a human, his organs and systems.
PO2	To collect information about the patient's general condition; to assess the patient's psychomotor and physical development and the state of organs and systems of the body; to assess information on the diagnosis (according to the List 4) based on laboratory and instrumental findings.
PO3	To order and analyze additional (mandatory and optional) examinations (laboratory, radiological, functional and/or instrumental) (according to the List 4) in order to perform a differential diagnosis of diseases (according to the List 2).
PO5	To detect the key clinical syndrome or the reason for patient's condition severity (according to the List 3) via informed decision and evaluation of the person's state under any circumstances (at home, in the street, at a healthcare facility), including under emergency and military operation conditions, in the field, with a lack of information and limited time.

PO11	To determine the appropriate approach in emergency medical care case under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes under limited time conditions based on the principles of evidence-based medicine.
PO12	To provide emergency medical assistance under any circumstances, adhering to the relevant ethical and legal norms, by making an informed decision based on the main clinical syndrome (disease severity) and emergency diagnosis (according to the List 3) using standard schemes and predetermined approach under limited time conditions based on the principles of evidence-based medicine.
PO13	To organize medical evacuation procedures among the population and the military under emergency and military operation conditions (including in the field), and during the phases of medical evacuation, given the existing system of medical evacuation provision.
PO14	To perform medical procedures (according to the List 5) at a medical facility, at home or at work on the basis of a provisional clinical diagnosis and/or health parameters through making an informed decision and adhering to the relevant ethical and legal norms.
PO15	To perform procedures related to emergency medical assistance within a limited time and under any circumstances, using standard schemes on the basis of a medical emergency diagnosis (according to the List 3).

7. Teaching and learning activities

7.1 Types of training

<p>Topic 1. Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient.</p>
<p>lect.1 "1" (full-time course)</p> <p>The concept of a single system of emergency medical care (EMC) in Ukraine. Responsibilities of healthcare professionals. Organization of the EMD service of Ukraine (structure and tasks). The main tasks, functions, rights and responsibilities of medical staff (doctors of the EMD service, general practitioners - family medicine and others) to provide medical care to the patient (victim) in an emergency. Ethical, deontological and communicative aspects of EMD. Peculiarities of providing emergency medical care at the pre-hospital stage (EMD team, general practitioners - family medicine, clinics), early hospital stage (EMD department of a multidisciplinary hospital) and hospital stage (multidisciplinary departments). Equipment of the EMD field team (medical devices, medicines, special equipment). Providing a family doctor's outpatient clinic and various departments of the hospital to provide EMD. Departure map of the EMD team, the rules of its design. Ergonomic principles in the work of the field team EMD (when working indoors, outdoors), teamwork. Acquaintance with EMD station. Safety instruction. Personal safety of an employee of the EMD team (medical worker) during the provision of emergency medical care (organizational measures, technical means of personal safety). Overview of the scene. Dangerous situations that are possible at the scene, tactics of medical workers.</p>

pr.tr.1 "Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient.." (full-time course)

Equipment of the EMD field team (medical devices, medicines, special equipment). Providing a family doctor's outpatient clinic and various departments of the hospital to provide EMD. Departure map of the EMD team, the rules of its design. Ergonomic principles in the work of the field team EMD (when working indoors, outdoors), teamwork. Acquaintance with EMD station. Safety instruction. Personal safety of an employee of the EMD team (medical worker) during the provision of emergency medical care (organizational measures, technical means of personal safety). defeat of the victim. EMD crew call, EMD car arrival dates. Work in a simulation class.

Topic 2. The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Initial examination.

pr.tr.2 "The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Initial examination." (full-time course)

Первинне обстеження (АВС). Завдання первинного обстеження. Технологія проведення у притомного і непритомного пацієнта (стабілізація голови та ший, забезпечення прохідності верхніх дихальних шляхів, визначення рівня притомності за шкалою AVPU, оцінка якості і частоти дихання, наявності центрального і периферичного пульсу, його частоти, температури тіла, кольору і вологості шкіри, капілярного наповнення, контроль профузної кровотечі). Прийняття рішення щодо надання медичної допомоги в ході первинного обстеження: накладання шийного комірця, подача кисню, усунення небезпечних для життя станів (усунення обтураційної механічної асфіPrimary examination (ABC). Tasks of the initial examination. Technology of the conscious and unconscious patient (stabilization of the head and neck, ensuring patency of the upper respiratory tract, determining the level of consciousness on the AVPU scale, assessment of quality and frequency of respiration, the presence of central and peripheral pulse, its frequency, body temperature, skin color and moisture, capillary filling, control of profuse bleeding). Decision-making on the provision of medical care during the initial examination: imposition of the neck collar, oxygen supply, elimination of life-threatening conditions (elimination of obstructive mechanical asphyxia, cessation of external bleeding, CPR). Work in a simulation class. іксії, зупинка зовнішньої кровотечі, СЛР).Робота в симуляційному класі.

Topic 3. The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination.

pr.tr.3 "The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination." (full-time course)

The purpose of the secondary examination. Patients to be examined quickly from head to toe at the scene. Examination technology (primary examination, assessment of consciousness on the Glasgow scale, examination, palpation of the head, assessment of pupils; examination, palpation of the neck; examination, palpation, percussion, chest auscultation; examination, palpation of the abdomen; determination of pelvic bone stability; examination, palpation lower and upper extremities, areas of the spine). Work in a simulation class.

Topic 4. Modern means of ensuring airway patency and artificial lung ventilation in adults.

pr.tr.4 "Modern means of ensuring airway patency and artificial lung ventilation in adults." (full-time course)

Causes, diagnosis and treatment of airway obstruction in adults. Ensuring airway patency by throwing the head back while maintaining the jaw, taking Safar. Ensuring airway patency in trauma of the cervical spine (removal of the lower jaw forward). Revision and rehabilitation of the oral cavity by manual and hardware methods. Use of oropharyngeal tube, ventilation of the victim's lungs through a mask using hand-held device for artificial ventilation (Ambu), oxygen supply. Use of the nasopharyngeal (nasopharyngeal) tube. Indications and technique of intubation of the victim. The use of alternative methods to ensure airway patency with a laryngeal mask, laryngeal tube, combi tube. Symptoms of partial and complete airway obstruction when a foreign body enters, methods of its recovery.

Topic 5. Circulatory and respiratory arrest. Technology of providing emergency medical care to adults.

lect.2 "Circulatory and respiratory arrest. Technology of providing emergency medical care to adults." (full-time course)

The concept of terminal states. Clinical death, its symptoms. Absolute and relative signs of biological death. Causes of inefficient blood circulation. Diagnosis of sudden death. Classification and assessment of heart rate in cardiac arrest. Cardiopulmonary resuscitation technology for ventricular fibrillation, ventricular tachycardia, pulseless electrical activity, asystole in adults according to the protocol of the European Council of Resuscitation. Diagnosis of the causes of cardiac arrest, which can be eliminated during resuscitation

pr.tr.5 "Зупинка кровообігу та дихання. Технологія надання екстреної медичної допомоги дорослим." (full-time course)

Поняття про термінальні стани. Клінічна смерть, її ознаки. Абсолютні та відносні ознаки біологічної смерті. Причини неефективного кровообігу. Діагностика раптової смерті. Класифікація і оцінка серцевого ритму при зупинці серця. Технологія серцево-легеневої реанімації при фібриляції шлуночків, шлуночкової тахікардії, безпульсовій електричній активності, асистолії в дорослих згідно із протоколом Європейської ради реанімації 2020 року. Діагностика причин зупинки серця, які можна усунути у процесі реанімації. Робота в симуляційному класі.

Topic 6. Emergency medical care for mass injuries

pr.tr.6 "Emergency medical care for mass injuries" (full-time course)

Procedure of ambulance crews in the center of mass destruction. Interaction with rescue services, the responsibility of each of them. Organization of a medical sorting zone, a medical care zone (medical point) and a transport zone (evacuation). Primary medical sorting according to the START system. Rules of use of sorting bracelets and coupons. Work in a simulation class.

Topic 7. Diagnosis and treatment of emergencies at the scene

pr.tr.7 "Diagnosis and treatment of emergencies at the scene" (full-time course)

Diagnosis and treatment at the prehospital stage of acute coronary syndrome, cardiogenic shock, hypertensive crisis in accordance with the approved protocols for emergency medicine. Work in a simulation class.

Topic 8. Emergency medical care for mechanical injuries

pr.tr.8 "Emergency medical care for mechanical injuries" (full-time course) Diagnosis and treatment at the prehospital stage of mechanical injuries of the skull, spine, chest, abdominal organs, pelvis and pelvic organs, limbs. Diagnosis and tactics of the visiting team with polytrauma, long-term compression and crushing syndrome, external and internal bleeding, traumatic and hemorrhagic shock, hemo- and pneumothorax. Algorithm for providing emergency medical care to victims of road accidents. Techniques to stop external bleeding. Technique of transport immobilization of different bone segments at the prehospital stage. Chest puncture in severe pneumothorax. Occlusive dressing. Work in a simulation class.
Topic 9. Final modular control
pr.tr.9 "Final modular control" (full-time course) Written work, testing on the basis of questions "STEP-2"
pr.tr.10 "Final modular control" (full-time course) Checking practical skills, solving situational problems

7.2 Learning activities

LA1	Preparation for the test and its implementation
LA2	Survey according to the topic of the practical lesson
LA3	Solving situational problems
LA4	Practice of practical skills in a simulation class
LA5	Working out of educational scenarios
LA6	Preparation of algorithms of actions according to the received task

8. Teaching methods

Course involves learning through:

TM1	multimedia lectures
TM2	practical classes with the use of multimedia presentations and watching videos
TM3	practical classes in the form of trainings with the decision of situational problems on simulators
TM4	case-study
TM5	independent learning
TM6	practice-oriented learning
TM7	case-based learning (CBL).
TM8	team-based learning (TBL).

Students will develop skills during the preparation and solution of practice-oriented tasks independent learning, rapid synthesis and analytical thinking, skills and abilities are acquired use different patterns of behavior even in the same situations; deeply understand your own interests and

interests of stakeholders, taking into account their rights and responsibilities as a member of society; set priorities quickly and clearly; make an informed logical choice if available alternatives; adapt quickly to new challenges and circumstances; be stress-resistant to loads, be able to achieve the goal; work in a team.

9. Methods and criteria for assessment

9.1. Assessment criteria

ECTS	Definition	National scale	Rating scale
A	Outstanding performance without errors	5 (Excellent)	$90 \leq RD \leq 100$
B	Above the average standard but with minor errors	4 (Good)	$82 \leq RD < 89$
C	Generally sound work with some errors	4 (Good)	$74 \leq RD < 81$
D	Fair but with significant shortcomings	3 (Satisfactory)	$64 \leq RD < 73$
E	Performance meets the minimum criteria	3 (Satisfactory)	$60 \leq RD < 63$
FX	Fail – some more work required before the credit can be awarded	2 (Fail)	$35 \leq RD < 59$
F	Fail – considerable further work is required	2 (Fail)	$0 \leq RD < 34$

9.2 Formative assessment

FA1	Testing / surveys within the topics of practical classes
FA2	Checking the results of individual / group practical tasks
FA3	Teacher's instructions in the process of performing practical tasks
FA4	Test of practical skills
FA5	Evaluation of the effectiveness of emergency medical care in the emergency scenario
FA6	Peer assessment
FA7	Checking and evaluating written assignments
FA8	Solving situational problems

9.3 Summative assessment

SA1	Testing within the topics of the content of the discipline
SA2	Survey within the topics of the discipline
SA3	Solving situational practice-oriented tasks, specific situations
SA4	Final control

Form of assessment:

The semester of teaching	200 scores
SA1. Testing within the topics of the content of the discipline	32

	8x4	32
SA2. Survey within the topics of the discipline		40
	8x5	40
SA3. Solving situational practice-oriented tasks, specific situations		48
	8x6	48
SA4. Final control		80
		80

Form of assessment (special cases):

9 semester		200 scores
SA1. Testing within the topics of the content of the discipline		32
	In case of quarantine restrictions, practical classes are conducted remotely using a platform Mix.sumdu.edu.ua, Zom, Google meet.	32
SA2. Survey within the topics of the discipline		40
	In case of quarantine restrictions, practical classes are conducted remotely using a platform Mix.sumdu.edu.ua, Zom, Google meet.	40
SA3. Solving situational practice-oriented tasks, specific situations		48
	YIn case of quarantine restrictions, practical classes are conducted remotely using a platform Mix.sumdu.edu.ua, Zom, Google meet.	48
SA4. Final control		80
	In case of quarantine restrictions, practical classes are conducted remotely using a platform Mix.sumdu.edu.ua, Zom, Google meet.	80

Assessment during the study of the discipline is carried out in the form of testing (M1), oral and written interviews (M2), for the results of solving situational practice-oriented tasks or specific situations (M3) and final control (M4), with mandatory discussion of the results. All the work must be performed independently. Individual tasks, similar to each other, will be rejected. In special situations, work during the semester can be done remotely. Final control is carried out upon completion of the study of all topics in the form Φ schedule, according to the schedule of the educational process. Students who have performed all types of work provided by the curriculum in the discipline and the results of the current They scored at least 72 points. When mastering the materials of the module, the student is assigned a maximum of 5 points for each practical lesson (the grade is set in the traditional 4-point grading system). At the end of the academic year, the arithmetic mean of student performance is calculated. The maximum number of points that a student can receive in practical classes during the academic year is 120. The student is allowed to take a practice-oriented differentiated test if the requirements of the curriculum are met and if he has scored at least 72 points for the current educational activity. Practice-oriented differentiated test is conducted according to the schedule at the end of the discipline. At the beginning of the lesson the student passes a test control of knowledge (30 theoretical questions (30 points), to which he chooses the correct answers from the proposed ones). Test control is considered passed if the student answered 60% of the questions correctly. Tickets contain 3 theoretical questions on various

topics and cover all sections of the discipline (5 points each), practice practical skills and solving situational problems (35 points). Differentiated credit is credited to the student if he scored at least 48 points out of 80. Incentive points are added to the grade for the discipline for the implementation of an individual research project (defense of student academic work 12 points, presentation at the conference 5 points, poster presentation at the conference 4 points, abstracts) 3 points). The total score in the discipline may not exceed 200 points. The form of the final control includes control and evaluation of theoretical and practical training: 1. Testing on the basis of questions "STEP-1": 80% - 85% of correct answers - satisfactory, 86 - 90% - good, 91 - 100% - excellent. 2. Assessment of written work 3. Assessment of practical skills. 4. Solving situational problems.

10. Learning resources

10.1 Material and technical support

MTS1	Library funds
MTS2	Graphic tools (drawings, drawings, maps, diagrams, posters, etc.)
MTS3	Computers, computer systems and networks
MTS4	Simulation class (Mannequins for cardiopulmonary resuscitation - realistic resistance of the chest during compression, manual airway patency, excursion of the chest with artificial ventilation, means to stop external bleeding - turnstiles, bandages, Israeli bandages and lungs. for monitoring of the patient, Means for performing complex endotracheal intubation, restoration of airway patency, conicotomy, oropharyngeal and nasopharyngeal airways, laryngeal masks, AMBU bags)
MTS5	Multimedia, video and sound reproduction, projection equipment (video cameras, projectors, screens, smart boards, etc.)
MTS6	Medical facilities / premises and equipment (clinics, hospitals, etc.)
MTS7	Software (to support distance learning, online survey

10.2 Information and methodical support

Essential Reading	
1	Order of the Ministry of Health of Ukraine dated 05.06.2019 № 1269 "Emergency medical care .: Pre-hospital stage. New clinical protocol "
2	Emergency and Urgent Medical Care / medichna pomoga: navchalnyi posibnyk / O. Yu. Bodulev, O. M. Dyky, AI Mohyl'nyk and others. ; head ed. DA Shkurupiy, lane. from Ukrainian - Vinnytsia: Nova Kniga, 2019. - 200 p.
3	Order of the Ministry of Health № 1269 of 05.06.19 "On approval and implementation of medical and technological documents for EMD standardization"
4	Clinical routes of patients / victims of emergency medical care at the prehospital stage. Volume III / V.O. Krylyuk, SO Gur, ev, AA Hudyma, G.Yu. Tsymbalyuk and others.- K .: Revives -2020.-350p.
Supplemental Reading	

1	Methodical instructions for the practical lesson «Basic Life Support» for the discipline «First Aid» (according to the Bologna system) / authors: Y. V. Shkatula, Y. O. Badion, I. V. Veselova. – Sumy : Sumy State University, 2019. – 17 p.
2	«Methods of External Bleeding Control» for the discipline «First Aid» (according to the Bologna system) / authors: Y. V. Shkatula, Y. O. Badion. – Sumy : Sumy State University, 2020. – 26 p.
Web-based and electronic resources	
1	Website department of Emergency Care and Disaster Medicine www.emergency.med.sumdu.edu.ua
2	European Resuscitation Council https://www.erc.edu
3	American Heart Association https://www.heart.org
4	The testing center – www.testcentr.org.ua