



**APPROVAL SHEET**

**OF THE COURSE CURRICULUM  
PROFESSIONAL MILITARY EDUCATION**

**BASIC TACTICAL COURSE L-1A AND  
TACTICAL LEVEL PROFESSIONAL COURSE  
LOGISTICS FORCES (FUEL AND LUBRICANTS),  
L-1B (FUEL AND LUBRICANTS)**

**by military speciality**      701000 Organisation of supply of fuel and lubricants to troops (forces)

APPROVED

Director of the Department of Military Education and Science of the Ministry of Defence of Ukraine  
Doctor of Technical Sciences,  
Professor

Volodymyr MIRNENKO

" \_\_\_\_ " \_\_\_\_\_ 20\_\_ .

APPROVED

Acting Head of the Central Directorate of Military Education and Science of the General Staff of the Armed Forces of Ukraine  
Colonel

Yevhen LEVISHCHENKO

" \_\_\_\_ " \_\_\_\_\_ 20\_\_ .

APPROVED

Acting Commander of the Logistics Forces of the Armed Forces of Ukraine  
Colonel

Serhii ARTAMOSCHENKO

" \_\_\_\_ " \_\_\_\_\_ 20\_\_ .

**Developed and introduced**

**Chairman of the working group**

Head of the Training Department of the Logistics Forces Command of the Armed Forces of Ukraine  
Colonel

Viktor KOSTRITSA

" \_\_\_\_ " \_\_\_\_\_ 20\_\_ .

## PREFACE

**Developed by the working group:** Command of the Logistics Forces of the Armed Forces of Ukraine and the Military Academy (Odesa).

Order of the Command of the Logistics Forces of the Armed Forces of Ukraine \_\_\_\_\_ 2025 No. \_\_\_\_\_.

**Chairman of the working group:**

Viktor KOSTRYTSIA - Head of the Training Department of the Logistics Forces Command of the Armed Forces of Ukraine.

**Members of the working group:**

Ihor PINCHAKOVSKYI - Deputy Head of the Central Department for Fuel and Lubricants Supply of the Logistics Forces Command of the Armed Forces of Ukraine;

Serhii YANIUK - PhD in Public Administration, Associate Professor, Head of the Department of Fuel and Lubricants Supply, Faculty of Logistics Specialists Training, Military Academy (Odesa).

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Yurii KUZENKO, Senior Teacher of the Department of Fuel and Lubricants Supply, Faculty of Logistics Training, Military Academy (Odesa).

**ACCOUNTED FOR:**

1. Professional standard of a tactical officer of the Armed Forces of Ukraine.
2. Educational programme of the professional military education course "Basic course of tactical level L-1A", OP 7-00(341)345.61.
3. Comments and suggestions from internal and external stakeholders.
4. Proposals from students and academic staff of the Military Academy (Odesa).
5. Experience in combat operations

**I. PROFILE OF THE EDUCATIONAL PROGRAMME**

**PROFESSIONAL MILITARY EDUCATION COURSE**  
**BASIC TACTICAL COURSE L-1A AND**  
**TACTICAL LEVEL PROFESSIONAL COURSE**  
**LOGISTICS FORCES (FUEL AND LUBRICANTS),**  
**L-1B (FUEL AND LUBRICANTS)**

<b>1 - General information</b>	
<b>Full name of the higher education institution (higher education institution, higher education institution)</b>	Military Academy (Odesa),
<b>Name of the document on completion and scope of the educational programme of the professional military education course</b>	Certificate of completion of the professional military education course "Basic course of tactical level L-1A and professional course of tactical level of Logistics Forces (fuel and lubricants), L-1B (fuel and lubricants), under VOS 701000". Scope of the educational programme: 40 ECTS credits.
<b>Background.</b>	Possession of a higher education degree not lower than a bachelor's degree, fitness for military service in the officer's position.
<b>Language(s) of instruction</b>	Ukrainian
<b>Validity of the educational programme of the professional military education course</b>	For the period of martial law
<b>2 - Objectives of the study programme</b>	
To train qualified officers at the tactical level who are competent in organising the supply of fuel and lubricants to troops (forces), operating technical means of the fuel service and are capable of performing assigned tasks.	
<b>3 - Characteristics of the study programme</b>	
<b>Subject area</b>	Field of knowledge: "25 Military sciences, national security, state border security"; Speciality: "254 Support of troops (forces)"; Specialisation: "Providing units (units, formations) with rocket fuel, fuel and lubricants".
<b>The main focus of the curriculum of the professional military education course</b>	Professional military education for military service in typical positions defined in the professional standard for a tactical officer under VOS 701000.
<b>Features of the programme</b>	The curriculum was developed taking into account the educational programme of the basic course of the tactical level L-1A, approved by the Chief of the General Staff of the Armed Forces of Ukraine on 29.06.2024 No. 97672 / C, and the actual experience of combat operations gained during the anti-terrorist operation, the joint

	forces operation and repulsion of the full-scale invasion of Russia into the territory of Ukraine.
<b>4 - Opportunities for graduates to find employment and further education</b>	
<b>Employment opportunities</b>	Primary positions of junior officers as defined in the professional standard for tactical level officers.
<b>Further training</b>	Training under the educational programme of the professional military education course "Tactical level command course of the Logistics Forces L-1C"
<b>5 - Teaching and assessment</b>	
<b>Teaching and learning</b>	The main types of classes used to teach the components of the educational programme are: lectures; seminars, group, practical, Group sessions; tactical (tactical and formation, tactical and special) independent classes, including at the field training base.
<b>Evaluation</b>	<p>Ongoing supervision during classes, working on practical tasks and standards.</p> <p>Intermediate control of the result of mastering the disciplines of the basic course of the tactical level L-1A.</p> <p>Final control in the form of an exam or test in each discipline.</p> <p>Assessment of the learning outcomes of course students includes the full range of Assessment activities provided by the programmes of academic disciplines and is carried out on a 100-point scale, ECTS scale and national scale.</p> <p>The result of the test on the training material can be assessed on a two-tier scale: "passed" or "failed".</p>
<b>6 - Programme competences</b>	
<b>Military and professional competences (MPC)</b>	<p><b>MIC-1.</b> The ability to perform official duties in good faith and honesty in accordance with the requirements of the Statutes of the Armed Forces of Ukraine and other regulatory legal acts governing official activities, and to demand that subordinates comply with and fulfil them.</p> <p><b>MIC-2.</b> The ability to plan, organise combat and manage a unit in the main types of combat (tactical actions).</p> <p><b>MIC-3.</b> Ability to apply in practice the basic provisions of the theory of management and decision-making, algorithms for making managerial decisions, principles and procedures for effective management of the unit (including NATO standards); conduct historical and retrospective analysis.</p> <p><b>MIC-4.</b> The ability to analyse and understand the mission; lead personnel to achieve it, demonstrating values, character traits and thinking based on examples of the Warrior ethos and outstanding military leadership.</p> <p><b>MIC-5.</b> The ability to improve professional, methodological and physical skills; to personally conduct combat training classes with personnel (unit); to work with secret documents, store weapons and ammunition, ensure compliance with security measures during classes; to maintain the unit's constant readiness to perform assigned tasks in peacetime and wartime.</p> <p><b>MIC-6.</b> Ability to organise CBRN protection in the unit; use personal protective equipment and overcome contaminated areas in various conditions of the situation in the course of performing assigned tasks.</p> <p><b>MIC-7.</b> Ability to determine the tactical properties of the terrain</p>

	<p>when conducting combat operations in various conditions; work with topographic maps and photographic documents; navigate terrain with a map, without a map and using navigation devices.</p> <p><b>MIC-8.</b> Ability to perform engineering support tasks in various types of combat.</p> <p><b>MIC-9.</b> Ability to organise and maintain communication in the unit using standard means of communication.</p> <p><b>MIC-10.</b> The ability to perform professional activities in conditions of prolonged, diverse physical exertion and mental stress; to organise the training of servicemen to ensure their physical readiness to perform assigned tasks; to organise the performance of tactical medicine tasks.</p> <p><b>MIC-11.</b> The ability to prepare the unit's standard weapons for combat use; effectively use the combat and technical capabilities of weapons (weapons) during combat (combat operations), conducting all types of training with subordinate personnel; the ability to personally master the techniques and methods of accurate fire from standard weapons (weapons) at targets that appear and move, day and night; the ability to control the fire of subordinate units (firearms) during combat missions.</p> <p><b>MIC-12.</b> Ability to apply disciplinary practice in relation to subordinate personnel; manage a unit in compliance with international humanitarian law.</p>
<p><b>Military-specific competences (MSC)</b></p>	<p><b>VSK-1</b> Ability to organise logistical support of units (units), including provision of weapons, military and special equipment, material and technical means, transport and engineering infrastructure works and services.</p> <p><b>SC-2</b> Ability to apply knowledge of military art, organisation of support for modern combined arms combat (actions) in various conditions of professional activity</p> <p><b>VSK-3</b> The ability to plan, organise and conduct the main types of combat (military operations), clearly define combat missions for subordinate and attached units (firepower), and navigate in difficult combat conditions;</p> <p><b>PC-4</b> Ability to keep records, write-off and report on material and technical means of the fuel and lubricants service</p> <p><b>BCK-5</b> Ability to carry out procedural analyses to determine the composition and class of oil and oil products</p> <p><b>VSK-6</b> Ability to perform the duties of the head of the fuel and lubricants service of a military unit</p> <p><b>BCK-7</b> Ability to carry out control functions to prevent breakdowns, accidents, losses and shortages of material and technical means of the fuel and lubricants service and personally carry out simple repair work to return faulty equipment to service</p> <p><b>VSK-8</b> Ability to provide fuel and lubricants and technical means of the fuel service in peacetime and wartime for their maintenance and replenishment of losses</p> <p><b>BCK-9</b> Ability to organise fuel quality control and personally conduct laboratory tests of fuels, lubricants and special liquids</p> <p><b>BCK-10</b> Is able to organise and carry out the installation of field main pipelines, their operation, repair and dismantling.</p> <p><b>BCK-11</b> Ability to organise the operation and repair of technical</p>

	<p>means of fuel service.</p> <p><b>BCK-12</b> Ability to perform the duties of a logistics officer (logistics services).</p>
<b>7 - Programme learning outcomes</b>	
<b>Professional training</b>	<p><b>LO 1.</b> Apply the requirements of the Statutes of the Armed Forces of Ukraine in the organisation of service activities in the unit, internal and guard service, maintaining military discipline and ensuring the unit's coherence.</p> <p><b>RNvp-2.</b> To prepare the unit for combat (tactical actions), to manage the actions of the unit during combat (tactical actions).</p> <p><b>LO-3.</b> To know and understand the principles and procedures for managing a unit according to NATO standards and be able to use them to achieve service and combat objectives; to make informed decisions on the actions of the unit in a combat situation using the principles and procedures of NATO standards; to be able to conduct historical and retrospective analysis of actions.</p> <p><b>PLO-4.</b> To know and understand the peculiarities of the officer's profession, the basics of military leadership, values, character traits and types of thinking of outstanding military leaders on the examples of their military professional activities and the ethos of the Warrior.</p> <p><b>LO5.</b> Know the methods of improving their professional and methodological skills, personally conduct combat training classes with personnel (unit); be able to work with secret documents; securely store weapons and ammunition, unit property, manage the unit's company economy; ensure compliance with safety measures during classes, firing (flights, campaigns), exercises (training), readiness checks.</p> <p><b>LO-6.</b> Organise CBR protection in the unit (use personal protective equipment and overcome contaminated areas) in various conditions of the situation in the course of performing assigned tasks.</p> <p><b>LO 7.</b> Determine the tactical properties of the terrain when conducting combat operations in various conditions; work with topographic maps and photographic documents; navigate unfamiliar terrain with a map, without a map and with the help of navigation devices, day and night, in any weather and season.</p> <p><b>LO-8.</b> Formulate instructions for engineering support to the platoon in various types of combat, using an understanding of basic engineering support measures; carry out practical equipment and camouflage of platoon support elements; organise measures to remove and clear single mines and minefields using standard equipment.</p> <p><b>LO-9.</b> To use regular communications equipment that are in service with the unit to organise communications; to organise measures to protect against enemy electronic warfare during preparation and conduct of combat.</p> <p><b>PLO-10.</b> Apply knowledge to meet the needs of the serviceman during actions in autonomous conditions at the expense of natural resources; protection from the effects of physical and geographical conditions using natural and improvised means; be able to organise the implementation of tactical medicine tasks.</p> <p><b>LO 11.</b> Apply knowledge of the material part of small arms, rules of fire, operation and maintenance of small arms, methods of</p>

organising and conducting classes to train unit personnel, prepare weapons for firing in marching (combat) handling and in the performance of combat missions; apply knowledge and skills in fire control of the unit in combat.

**PLO-12.** Understand the procedure for military service, bringing servicemen to criminal, administrative and material responsibility; social and legal protection of servicemen and their families; know the procedure for conducting an internal investigation in the Armed Forces of Ukraine; apply knowledge of international humanitarian law.

**LO 1.** Determine the technical characteristics and operating procedures for regular weapons and equipment, the requirements of guidelines for the storage and operation of weapons and equipment, the rules for the preparation and maintenance of technical documentation of the unit, and is able to organise logistical support for the unit.

**RNvs-2** To know and understand the general principles of military art, modern armed struggle, and general combat, to be able to effectively manage a unit in the main types of combat at the battalion level.

**RNvs-3.** To effectively use combat capabilities, various forms and methods of tactics of units in the main types of combat (tactical actions).

**PCE-4.** Know and understand the procedure for organising the accounting, write-off and reporting of material and technical means of the fuel and lubricants service.

**PO 5.** To know and understand the origin, methods of extraction, classification of oil and oil products, its composition and physical and chemical properties, methods and techniques for the production of fuels and lubricants and special technical fluids, to use fuels and lubricants and special technical fluids in accordance with their purpose.

**RNvs-6.** To know and understand the procedure for organising the work of the service of fuels and lubricants of military units (subdivisions), interaction between the services of the unit, organisation of supply of rocket fuel and fuel to the unit in peacetime and in combat conditions, the basics and rules of provision, equipment and property, the procedure and rules for keeping records of material resources of the service. Use quality control devices in official activities, be able to distinguish petroleum products by their main physical and chemical characteristics, conduct systematic control of the economic activities of the service and perform the duties of the head of the service of fuels and lubricants of the military unit in full.

**PCVS-7.** Know and understand the basic provisions for the operation of technical means and property of the fuel and lubricants service, carry out planning and control functions to prevent breakdowns, accidents, losses and shortages of material and technical means of the fuel and lubricants service, organise the operation, technological maintenance of technical means of the current and long-term storage. To know and use guidelines for organising control over the technical condition of technical means of the service, to be familiar with the nomenclature of technical means of the fuel service, to develop planning documents for the operation and maintenance of technical means of the service, to conduct tactical and tactical exercises with fuel service units.

**RNvs-8.** Provide fuel and lubricants and technical means of the fuel service to maintain the unit in constant combat and mobilisation readiness, organise the acceptance, storage, receipt, issue and accounting of material means of the service, refuelling of weapons in stationary and field conditions, manage subordinate units in peacetime, wartime and in a special period, develop planning, administrative, reporting and other documents of the fuel service.

	<p><b>PO 9.</b> Know the physical and chemical properties of petroleum products, reproduce methods of quality control, identify them according to state standards, determine the quantity and quality of light and dark petroleum products in the tank farms of military units and support centres, and properly store fuels and lubricants.</p> <p><b>PO 10.</b> To know and understand the procedure for organising the actions of pipeline units when using them for their intended purpose. Know the technical specifications of field main pipelines.</p> <p><b>PCE-11.</b> Know the basic provisions for the organisation and planning of operation and repair of technical means of fuel service.</p> <p><b>LO 12.</b> To know and understand the procedure for organising the work of logistics officers (by logistics services), to apply the acquired knowledge in the performance of duties.</p>
<b>8 - Resource support for programme implementation</b>	
<b>Human resources support</b>	<p>The academic staff involved in the educational programme are full-time employees of the Military Academy, some of whom have academic degrees, academic titles and a proven level of scientific and professional activity. Professional competences are developed by professionals with professional experience.</p> <p>The practice-oriented nature of the educational programme involves the wide participation of practitioners who are relevant to the programme, which enhances the synergy between theoretical and Practical sessions.</p> <p>The head and members of the working group on the development of the programme, as well as the teaching staff that ensures the implementation of the educational programme meet the requirements set by the Ministry of Defence of Ukraine</p>
<b>Logistical support</b>	<p>The material and technical base of the Military Academy (Odesa) and the Centre for Supporting the Educational Process of the Military Academy is used to implement the competencies and learning outcomes specified in the educational programme. The material and technical support meets the requirements for the provision of educational services and is sufficient to ensure the quality of the educational process, in particular: classrooms; computer classes (laboratories); specialised laboratories; gyms, sports grounds; library, reading room; multimedia equipment; premises for research and teaching staff; barracks premises; dining room, etc.</p>
<b>Information and educational support</b>	<p>Teaching and learning materials are developed in accordance with the current regulatory and legislative documents of the Ministry of Education and Science of Ukraine and orders of the Ministry of Defence of Ukraine, and consist of the following materials:</p> <ul style="list-style-type: none"> <li>instructional and methodological materials for practical classes;</li> <li>teaching and learning materials for all types of classes;</li> <li>methodological instructions for the execution of works (projects);</li> <li>methodological guidelines for organising independent work;</li> <li>programmes of all types of Practical sessions;</li> <li>diagnostic tools.</li> </ul> <p>The library fund is used in teaching, including teaching materials, educational and methodological developments of teaching staff.</p> <p>The programme is implemented using the virtual learning environment of the Military Academy (Odesa), author's developments, textbooks and manuals, and other teaching and learning materials.</p> <p>The official website of the Academy (<a href="http://vaodesa.mil.gov.ua/">http://vaodesa.mil.gov.ua/</a>)</p>

	contains information on educational, scientific and educational activities, structural units, admission rules, contacts, and users have the opportunity to use all available library resources. There is technological and material and technical support for the educational process.
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## 2. LIST OF COMPONENTS OF THE CURRICULUM OF THE PROFESSIONAL MILITARY EDUCATION COURSE AND THE CORRESPONDENCE OF PROGRAMME COMPETENCES AND LEARNING OUTCOMES TO THE COMPONENTS OF THE CURRICULUM

### 2.1. List of components of the OP

Code. n/a.	Components of the educational programme (academic disciplines/modules)	Number of credits	Form of final control
Module 1: Basic tactical course, L-1A			
WP 1.1	History of wars and military art	0,5	Credit
WP 1.2	Fundamentals of military leadership	1	Credit
WP 1.3	General tactics	5	Examination
OP 1.4	Fundamentals of military management (including Troop Leading Procedures)	2	Credit
VP 1.5	Manage the day-to-day operations of the divisions	1	Credit
VP 1.6	Radiation, chemical, biological protection of units (including ecology)	0,5	Credit
VP 1.7	Military topography	1	Credit
VP 1.8	Engineering training	1	Credit
VP 1.9	Organisation of military communications	0,5	Credit
GP 1.10	Combat system for survival of soldiers (including tactical medicine)	2	Credit
GP 1.11	Statutes of the Armed Forces of Ukraine and their practical application (including Drill Exercise)	0,5	Credit
GP 1.12	Small arms and firearms training	3	Credit
GP 1.13	Fundamentals of military law and international humanitarian law	0,5	Credit
GP 1.14	Intelligence training	0,5	Credit
GP 1.15	Fundamentals of organising and conducting warfare in the electromagnetic environment and cyberspace	0,5	Credit
GP 1.16	Basics of using tactical-grade unmanned systems	0,5	Credit
<b>Total per module</b>		<b>20,0</b>	
Module 2. Tactical level professional course Logistics forces (fuel and lubricants), L-1B (fuel and lubricants)			
BC 1	Combat use of mechanised units	1,3	Credit
BC 2	Logistical support for combat operations	4,3	Examination
BC 3	Use and quality control of fuel and fuels	3,5	Examination
BC 4	Organisation of rocket fuel supply and fuel	5,4	Examination
BC 5	Use of technical means of fuel service	3,5	Examination
BC 6	Provision of fuel and lubricants materials from the Air Force and Military naval forces	2,0	Credit
<b>Total per module</b>		<b>20,0</b>	
<b>Total under the loan programme</b>		<b>40,0</b>	

## 2.2 Correspondence of programme competences to the components of the educational programme

	VP 1	VP 2	VP 3	VP 4	VP 5	VP 6	VP 7	VP 8	VP 9	VP 10	VP 11	VP 12	VP 13	VP 14	VP 15	VP 16	BC 1	BC 2	BC 3	BC 4	BC 5	BC 6
MIC-1											+											
MIC-2			+	+										+		+						
MIC-3	+			+																		
MIC-4		+																				
MIC-5					+																	
MIC-6						+																
MIC-7							+															
MIC-8								+														
MIC-9									+							+						
VPK-10										+												
MIC-11												+										
MIC-12													+									
VSK-1																	+	+		+		
VSK-2																	+	+		+		+
VSK-3																	+	+				
VSK-4																				+		+
VSK-5																			+			+
VSK-6																				+		+
VSK-7																				+	+	+
VSK-8																		+	+	+		+
VSK-9																			+			
VSK-10																					+	
VSK-11																				+	+	+
VSK-12																			+			

### 2.3 Correspondence of learning outcomes to the components of the educational programme

	VP 1	VP 2	VP 3	VP 4	VP 5	VP 6	VP 7	VP 8	VP 9	VP 10	VP 11	VP 12	VP 13	VP 14	VP 15	VP 16	BC 1	BC 2	BC 3	BC 4	BC 5	BC 6
RNvp-1											+											
RNvp-2			+	+										+		+						
RNvp-3	+			+																		
RNvp-4		+																				
RNvp-5					+																	
RNvp-6						+																
RNvp-7							+															
RNvp-8								+														
RNvp-9									+						+							
RNvp-10										+												
RNvp-11												+										
RNvp-12													+									
RNvs-1																	+	+		+	+	+
RNvs-2																	+	+			+	
RNVS-3																	+	+				
RNVS-4																				+		+
RNVS-5																			+			+
RNVS-6																				+		+
RNVS-7																					+	+
RNVS-8																				+		+
RNVS-9																		+	+		+	+
RNVS-10																					+	
RNVS-11																					+	
RNVS-12																		+				

### 3. DISTRIBUTION OF STUDY PROGRAMME COMPONENTS BY COURSES AND SEMESTERS OF STUDY

No. s/n	Academic discipline code	Name of the discipline	Final reporting (breakdown by semester)		Number of ECTS credits	Total number of hours	Audit hours (under the guidance of the SPP, instructors)				Control measure	Independent work	Distribution of classroom hours					
			examinations	credits			in total	including					Months					
								lectures	group, seminars	practical and other			1	2	3	4	5	6
			Number of weeks in a month						4	4			4	4	4	4		
			4	4			4	4	4	4								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
<b>Module 1: Basic tactical course, L-1A</b>																		
1	WP 1.1	History of wars and military art	-	1	0,5	15	10	6	4	-	2	3	-	-	-	-	-	-
2	WP 1.2	Fundamentals of military leadership	-	1	1	30	24	-	22	2	2	4	-	-	-	-	-	-
3	WP 1.3	General tactics	1	-	5	150	94	8	34	52	6	50	-	-	-	-	-	-
4	OP 1.4	Fundamentals of military management (including Troop Leading Procedures)	-	1	2	60	56	30	14	12	2	2	-	-	-	-	-	-
5	VP 1.5	Manage the day-to-day operations of the divisions	-	1	1	30	28	14	8	6	2	-	-	-	-	-	-	-
6	VP 1.6	Radiation, chemical, biological protection of units (including ecology)	-	1	0,5	15	12	4	2	6	2	1	-	-	-	-	-	-
7	VP 1.7	Military topography	-	1	1	30	18	-	12	6	2	10	-	-	-	-	-	-
8	VP 1.8	Engineering training	-	1	1	30	18	2	12	4	2	10	-	-	-	-	-	-
9	VP 1.9	Organisation of military communications	-	1	0,5	15	10	-	6	4	2	3	-	-	-	-	-	-
10	GP 1.10	Combat system of warrior survival (including tactical medicine)	-	1	2	60	38	3	17	18	2	20	-	-	-	-	-	-

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
11	GP 1.11	Statutes of the Armed Forces of Ukraine and their practical application (including Drill Exercise)	-	1	0,5	15	12	6	-	6	2	1	-	-	-	-	-	-
12	GP 1.12	Small arms and firearms training	-	1	3	90	64	2	26	36	4	22	-	-	-	-	-	-
13	GP 1.13	Fundamentals of military law and international humanitarian law	-	1	0,5	15	10	4	4	2	2	3	-	-	-	-	-	-
14	GP 1.14	Intelligence training	-	1	0,5	15	8	2	6	-	2	5	-	-	-	-	-	-
15	GP 1.15	Fundamentals of organising and conducting warfare in the electromagnetic environment and cyberspace	-	1	0,5	15	12	6	4	2	2	1	-	-	-	-	-	-
16	GP 1.16	Basics of using tactical-grade unmanned systems	-	1	0,5	15	10	4	4	2	2	3	-	-	-	-	-	-
<b>Total per module</b>			<b>1</b>	<b>15</b>	<b>20,0</b>	<b>600</b>	<b>424</b>	<b>91</b>	<b>175</b>	<b>158</b>	<b>38</b>	<b>138</b>	-	-	-	-	-	-
<b>Module 2. Tactical level professional course Logistics Forces (food supply), L-1B (PZ)</b>																		
17	BC 1	Combat use of mechanised units	-	1	1,3	40	32	2	18	18	2	-	-	-	-	-	-	-
18	BC 2	Logistical support for combat operations	1	-	4,3	130	118	10	48	60	6	6	-	-	-	-	-	-
19	BC 3	Use and quality control of fuel and fuels	1	1	3,5	105	66	18	14	34	6	35	-	-	-	-	-	-
20	BC 4	Organising the supply of rocket fuel and propellant	1	-	5,4	160	100	24	34	42	6	54	-	-	-	-	-	-
21	BC 5	Use of technical means of fuel service	1	-	3,5	105	66	12	26	28	6	35	-	-	-	-	-	-
22	BC 6	Supply of fuel and lubricants to units of the Air Force and Navy	-	1	2,0	60	36	8	10	18	6	20	-	-	-	-	-	-
<b>Total per module</b>			<b>4</b>	<b>3</b>	<b>20,0</b>	<b>600</b>	<b>418</b>	<b>74</b>	<b>150</b>	<b>200</b>	<b>32</b>	<b>150</b>	-	-	-	-	-	-
<b>Total number of</b>			<b>5</b>	<b>18</b>	<b>40,0</b>	<b>1200</b>	<b>842</b>	<b>165</b>	<b>325</b>	<b>358</b>	<b>70</b>	<b>288</b>	-	-	-	-	-	-
Number of hours per week													-	-	-	-	-	-
Number of exams:													-	-	-	-	-	-
Number of credits:													-	-	-	-	-	-

## 4. PROGRAMMES OF THE EDUCATIONAL PROGRAMME COMPONENTS

### 4.1. EP 1.1 "History of wars and military art"

#### **General objective of the educational programme component**

Training of military personnel who have a sufficient level of understanding of the forms and methods of using troops in major battles, wars and armed conflicts; the role of man and technology in the development of methods of armed struggle.

As a result of studying the discipline, students (trainees) should:

*to know:*

the most important wars and military conflicts in historical retrospect;  
characteristic features and peculiarities of the development of martial art in the wars of the past;  
interdependence of tactics on the development of weapons and military equipment;  
Perspective directions of development of the armed struggle of our time;

*be able to:*

identify the characteristics of armed confrontations of our time;  
make informed decisions, predicting possible developments in the course of hostilities;  
Conduct retrospective analysis, summarise and draw conclusions when making decisions and setting tasks.

#### **Organisational and methodological guidelines**

The discipline is designed to teach to understand the present through the analysis of the past, to master the basics of historical research methodology, to teach future military specialists a system of historical knowledge and skills, and the ability to think creatively.

The material of the discipline will enrich the knowledge of students with historical examples of the practical application of the branches of the Army in combat operations, focusing on the main forms of armed struggle, and will form the basis for independent forecasting of their development in the future.

The subject matter of the training topics and the logical sequence of their gradual study focuses on modern wars and conflicts (second half of the twentieth and early twenty-first century) with a brief excursion into ancient and modern history. Emphasis is placed on the practice of implementing the acquired knowledge in the professional activities of the officer.

The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in class under the guidance of a scientific and pedagogical employee.

During all forms of training, individual, group and frontal methods of knowledge control and active learning methods are used. The current control is carried out in the form of an oral survey or written express control during the training sessions.

For all types of classes, we use classrooms, computer labs, multimedia equipment, visual aids, and writing materials.

**Information and methodological support:**

1. White Book of the Anti-Terrorist Operation in the East of Ukraine (2014-2016) / Edited by I. Rusnak - Kyiv: NUOU, 2017.
2. Warfare in special conditions (historical examples): Study guide / P. Tkachuk, O. Kutska, C. Rogovskyi et al. Lviv: NASV, 2020.
3. Military art in local wars and armed conflicts of the 50s-80s of the twentieth century: a textbook / I. Furman, S. Sydorov, R. Pyliavets et al.
4. Military art in local wars and armed conflicts of the 90s of the twentieth and early twenty-first centuries: a textbook / I. Furman, S. Sydorov, R. Pyliavets et al.
5. Military and historical description of the Russian-Ukrainian war (monthly publication since March 2022) / MoD, General Staff of the Armed Forces, Central Military Intelligence Department of the Armed Forces.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions and tests events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic№ 1. Introduction to military history. Wars and the development of military art from the Ancient World to the end of World War II.</b>					
1	Lecture	2	2		<b>Class 1. Factors that influenced the evolution of martial arts.</b> 1. The place of war history and military art in the system of military science knowledge. 2. Development of means of armed struggle from the Ancient World to the end of the Second World War. 3. Wars and the development of military art before the First World War.
2	Group session	3	2	1	<b>Class 2. The development of military art in the First and Second World Wars.</b> 1. Causes, main battles and results of the First World War (1914-1918). 2. Causes, main battles and results of the Second World War (1939-1945). 3. Weapons and equipment that influenced the course of hostilities in the two world wars. <i>Independent work:</i> The development of military art of the leading countries of the world in the interwar period and in the Second World War. 1. Development of military art of the leading countries of the world in the interwar period. 2. The military and political situation in the world on the eve of the Second World War. 3. The development of the military art of Germany and the USSR in the Second World War.
<b>Total for the topic</b>		<b>5</b>	<b>4</b>	<b>1</b>	

<b>Theme 2. The development of martial arts in wars and armed conflicts of the second half of the twentieth century</b>					
4	Lecture	2	2	<p><b>Class 1. Wars and armed conflicts of the second half of the twentieth century.</b></p> <p>1. Development of new means of armed struggle and armed forces of the leading countries of the world after the Second World War.</p> <p>2. The development of military art of the leading countries of the world in local wars of the second half of the twentieth century.</p> <p>3. Causes, main operations and results of the Russian-Chechen wars.</p>	
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 3. The art of war and characteristics of wars of the early twenty-first century.</b>					
5	Lecture	3	2	1	<p><b>Class 1. The fight against terrorism on the example of the wars of the early twenty-first century.</b></p> <p>1. The development of the military art of the leading countries of the world in local wars of the early twenty-first century.</p> <p>2. Causes, course and results of wars in the post-Soviet space in the 21st century.</p> <p>3. Hybrid warfare: origin and development.</p> <p><i>Independent work:</i> Development of new means of armed struggle.</p> <p>1. The role and importance of precision weapons in modern warfare.</p> <p>2. Features of the use of robotics in modern wars.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 4. Formation and development of the Armed Forces of Ukraine.</b>					
7	Group session	3	2	1	<p><b>Class 1. Military history of Ukraine from Kyivan Rus to the present day.</b></p> <p>1. The military art of the princely army of the times of Kyivan Rus and the Ukrainian Cossack army.</p> <p>2. Ukrainian armed formations during the First and Second World Wars.</p> <p>3. Causes, course and development of military art during the Russian-Ukrainian war (since 2014).</p> <p><i>Independent work:</i> Examples of heroic actions of the Ukrainian defence forces.</p> <p>1. Western partners' military assistance to Ukraine during its confrontation with Russia after the full-scale invasion.</p> <p>2. Examples of heroic actions of the Ukrainian Defence Forces.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>15</b>	<b>12</b>	<b>3</b>	

## 4.2. EP 1.2 "Fundamentals of Military Leadership"

### **General objective of the educational programme component:**

Providing basic conceptual knowledge of the theory and practice of military leadership, developing cadets' (students') leadership competencies and skills of effective interaction in military organisational structures.

As a result of studying the discipline, students (trainees) should:

*to know:*

the essence of an officer's professional activity;

concepts and categories of military leadership;

the main provisions of the Military Leadership Doctrine;

common features and differences between management and leadership;

Levels of military leadership and their manifestations in the activities of an officer;

the essence of the mission, goals and objectives of a military leader;

leadership values and principles;

key concepts and structure of the Warrior ethos;

the Cossack code of honour; officers of the UPR, UPA, and modern officers of the Armed Forces of Ukraine;

basic requirements for a military leader;

profile of personal and professional competences of a military leader;

approaches to assessing and developing a military leader;

tools for managing the experience of a military leader;

*be able to:*

apply the acquired knowledge in simulated situations, everyday and combat activities;

evaluate models of military leadership;

identify the signs of counterproductive leadership;

implement the values of a military leader;

to develop the cognitive and volitional properties of a military leader;

develop the emotional intelligence and communication competence of a military leader;

to form an individual trajectory of development and career management of a military leader;  
manage the experience of a military leader.

**Organisational and methodological guidelines:**

It is mandatory to systematically consolidate the knowledge and skills acquired in the course of studying the discipline during practical, group classes and independent study.

In the course of studying the discipline, cadets (students) should develop a holistic view of military leadership in the Armed Forces of Ukraine, values, competencies, and worldview of a military leader.

The educational material to be studied during Independent Work is processed in accordance with the specified time and is submitted for current and final control together with the educational material that is processed in class under the guidance of a scientific and pedagogical employee.

During all forms of classes, active teaching methods, individual, group and frontal methods of knowledge control are used. Current control is carried out in the form of an oral survey or written express control during training sessions, including electronic questionnaires in various forms by the decision of the academic staff - the head of the classes.

For all types of classes, the following facilities are used: classrooms, computer labs, multimedia equipment, visual teaching aids, writing utensils, distance learning platforms, electronic manuals, questionnaires by the decision of the academic staff member - the head of the class.

**Information and methodological support:**

1. Doctrine of Military Leadership in the Armed Forces of Ukraine. OP 1-296: approved by the NGS of the Armed Forces of Ukraine. NGS of the Armed Forces of Ukraine of 22.01.2024.
2. To lead. To fight. To win. Ethos of the Marine Corps of Ukraine / edited by A. Zelinskyi. Kyiv: Ukraine Crisis Media Center with the support of the US Embassy in Ukraine and the NGO "Spirit of America", 2017 edition, 133 p.
3. Zelinsky A. Anatomy of a Warrior: Spirit, Way, Power. Kyiv: Circle of Life, 2023 edition, 215 p.
4. Zelinsky A. Semenovi zori. Lviv: Staryi Lev Publishing House, 2023. 488 c.
5. Pressfield S. Gates of Fire: The Heroic Epic of the Battle of Thermopylae. Kyiv: Nash format, edition 2023.
6. Willink D., Bebin L. Absolute responsibility. Leadership lessons from Navy SEALs. Kyiv: Knigolav, 2020 edition, 400 p.

7. Willink D. Discipline is Freedom. Kyiv: #knigolav, 2022 edition, 256 p.
8. Willink D. Leadership Strategy and Tactics / translated from English by L. Pylaeva. Kyiv: Book Chef, 2021. 368 c.
9. Resilience: Hard-won wisdom for a better life. Kharkiv: Ranok Publishing House, 2021 edition, 432 p.
10. McRaven V. G. Make your bed / translated from English by T. Zavoloko. Kyiv: KI-BOOKS Publishing Group, edition 2020, 128 p.
11. McRaven, W. The Hero's Code. Lessons from a Life Well Lived. Kyiv: KM-Books, edition 2022, 168 p.
12. McRaven, W. Sea Stories. My life in special operations. Kyiv: KM-BOOKS, 2020 edition, 408 p.
13. Army Leadership and The Profession ADP 6-22, July, 2019.
14. Army Leader Transitions Handbook, 2023.
15. Leader Development. FM 6-22, November, 2022.
16. Mission and Command. Command and Control of Armed Forces. ADP 6-0, July, 2019.

### Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions and tests events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Conceptual foundations of military leadership</b>					
1	Group session	4	2	2	<p><b>Class 1: Fundamentals of military leadership in the Armed Forces of Ukraine.</b></p> <p>1. Introduction to the discipline. Subject, objectives of the discipline and the procedure for its study.</p> <p>2. Officer as a profession.</p> <p>3. The essence of military leadership and management.</p> <p>4. Model of requirements for a military leader.</p> <p><i>Independent work:</i> Founding documents on military leadership.</p> <p>1. Basic requirements of the Doctrine and other founding documents on military leadership.</p>
2	Group session	2	2		<p><b>Class 2. Mission, purpose and tasks of a military leader.</b></p> <p>1. Mission and purpose of a military leader.</p> <p>2. Tasks of a military leader-officer.</p> <p>3. Tasks of a military leader-sergeant.</p>
3	Group session	4	2	2	<p><b>Class 3: Principles of military leadership.</b></p> <p>1. Principles of military leadership in the Armed Forces of Ukraine.</p> <p>2. Principles of military leadership in the armies of NATO member states.</p> <p>3. Leadership by John Maxwell, Jocko Willink and others.</p> <p><i>Independent work:</i> Levels of military leadership.</p> <p>1. Tactical level of military leadership.</p> <p>2. Operational level of military leadership.</p> <p>3. Strategic level of military leadership.</p>

<b>Total for the topic</b>		<b>10</b>	<b>6</b>	<b>4</b>	
<b>Topic 2: Values of a military leader.</b>					
4	Group session	2	2		<b>Class 1: Values of a military leader.</b> 1. The essence of the value "Honour". 2. The essence of the Sustainability value. 3. The essence of the value "Professionalism". 4. The essence of the Unity value. 5. Values of a military leader in the armies of NATO member states.
5	Group session	2	2		<b>Class 2. Ethos of the Warrior.</b> 1. Key concepts and structure of the Warrior ethos: "Spirit", "Path", "Power". 2. Comparison of the ethos of the Armed Forces of Ukraine: The ethos of the sergeant, Ethos of the Territorial Defence Forces, Ethos of the Marines.
6	Seminar (Roundtable Discussion)	2	2		<b>Class 3: Code of honour for national military leaders.</b> 1. Code of Cossack honour. 2. Code of Honour of Officers of the Ukrainian People's Republic. 3. The Code of Honour of the Officers of the Ukrainian Insurgent Army. 4. The Code of Honour of a Modern Officer of the Armed Forces of Ukraine.
<b>Total for the topic</b>		<b>6</b>	<b>6</b>		
<b>Topic 3. Competences of a military leader (Profile of a military leader)</b>					
7	Group session	2	2		<b>Class 1. Model of military leadership development.</b> 1. Value and competence model of a military leader: values, experience, personal and professional competences. 2. Ecosystem of competences of a military leader: personal and professional. 3. Professional (military-specific) competencies of a military leader.
8	Group session	2	2		<b>Class 2. Emotional and communication competence of a military leader.</b> 1. Emotional self-management of the military leader (Self-management) and management of the emotional state of subordinates and empathy of the military leader. 2. Establishing trust and mutual respect in the team. 3. Establishing effective communication with the team, providing feedback and constructive criticism.

					4. Crisis communication, conducting complex negotiations.
9	Group session	2	2		<b>Class 3: Digital and managerial competence of a military leader.</b> 1. Basic digital skills of a modern military leader. 2. Self-determination (self-actualisation) and self-motivation of a military leader. 3. Motivation and development of personnel. 4. 4. Counterproductive military leadership.
10	Seminar (Roundtable Discussion)	2	2		<b>Class 4: Intelligence and thinking of a military leader.</b> 1. Analytical, systematic, critical thinking of a military leader. 2. Innovative (creative, out-of-the-box, unconventional) thinking of the military leader. 3. Examples of unconventional thinking of modern military leaders (domestic and foreign).
<b>Total for the topic</b>		<b>8</b>	<b>8</b>		
<b>Topic 4. Assessment and development of a military leader.</b>					
11	Practical session	2	2		<b>Class 1: Assessing a military leader.</b> 1. Assessment of leadership qualities at the tactical level. 2. Assessment of leadership qualities at the operational level. 3. Assessment of leadership qualities at the strategic level. 4. Problematic aspects and promising approaches to assessing military leaders (domestic and foreign experience).
12	Group session	2	2		<b>Class 2. Development of military leaders.</b> 1. Formation of an individual trajectory of development of a military leader (career management of a military leader). 2. Managing the experience of a military leader.
<b>Total for the topic</b>		<b>4</b>	<b>4</b>		
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>30</b>	<b>26</b>	<b>4</b>	

### 4.3. EP 1.3 "General Tactics"

#### **General objective of the educational programme component**

Training of a serviceman who is able to apply the theoretical provisions of general combat, the basics of unit management and the requirements of guidelines for the design of combat graphic documents when planning combat operations; practically perform movement on the battlefield as part of combat groups and manage combat groups in the main types of combat; use a mechanised squad, mechanised platoon in modern conditions of general combat, taking into account the experience of using units in the Russian-Ukrainian war

As a result of studying the discipline, students (trainees) should:

*to know:*

the basics of general combat;

command and control requirements, battle planning procedures based on NATO military command and control procedures;

the procedure for drawing up combat graphic documents;

organisational and staffing structure, tactical and technical characteristics of weapons of mechanised units (squad, platoon);

the role, place and procedure for the use of mechanised units (squad, platoon) in a general combat;

Combat capabilities, tactical and technical characteristics of the weapons of the added units and the procedure for their use in combat;

the procedure for managing regular and attached units (battlegroup, squad, platoon) during combat;

peculiarities of organising the location of a mechanised platoon;

peculiarities of performing tasks in sentry protection by units of a mechanised platoon;

peculiarities of marching by mechanised units, actions of marching guard units;

tactics of mechanised units in defensive combat;

peculiarities of preparing and conducting defensive combat;

tactics of mechanised units in offensive combat;

peculiarities of preparing and conducting offensive combat;

*be able to:*

plan the actions of units in accordance with NATO military command and control procedures;

Prepare a mechanised unit with reinforcements for combat (tactical actions);

make decisions in a timely manner, set tasks, and achieve their fulfilment;

prepare combat documents for the platoon;

use the unit's firepower;

Manage staff and additional units in the course of performing assigned tasks;

to organise interaction with units of the armed services and special forces in a general battle.

### ***Organisational and methodological guidelines***

The subject of the discipline is the theory and practice of using mechanised units in the main types of general combat (tactical actions).

Group sessions are conducted to study the theoretical provisions of the use of mechanised units in the main types of combined arms combat (tactical actions). In the course of Group sessions, the cadets (students) learn the educational material by performing individual tactical, graphic (graphical and calculation) tasks.

Group sessions are conducted to train cadets (students) in the work of a unit commander to prepare him/her for actions in various tactical situations and to manage units during the course of actions. During Group sessions, communication equipment and topographic maps are used, and during exercises in the field, weapons and military equipment, weapons and imitation are used. To mark the enemy's actions, enemy marking units may be involved and the target situation of the training ground may be used. During Group sessions, all cadets (students) act as a unit commander, and the exercise leader acts as a senior commander (company commander).

Tactical formation and tactical exercises are conducted on Tactical exercise fields and other training grounds and designated areas. Other exercises are conducted in classrooms, specialised classrooms, simulators (simulation equipment) and training grounds.

### **Information and methodological support**

1. SBP 3-(01,02,04).58(59) Combat Statute of the Mechanised and Tank Troops of the Land Forces of the Armed Forces of Ukraine, Part III (platoon, section, tank): approved by Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 238 25.05.2016 (as amended in 2017-2023).

2. TP 7-00(194)11.01. Collection of standards for combat training of the Land Forces of the Armed Forces of Ukraine - Kyiv: KP CSR of the Armed Forces of Ukraine, 2021 (as amended in 2023).

3. OP 7-(01,03-05)215.58(59) Album of diagrams of "Methodological materials for the training of tactical groups" (squad, platoon) - Zhytomyr: Centre for Operational Standards and Methods of Training of the Armed Forces of Ukraine, edition 2023.

4. Methodological materials "Preparation of assault groups (squad, platoon) for assault operations." - Kyiv: Main Doctrine and Training Directorate of the General Staff of the Armed Forces of Ukraine, edition 2023.

5. Weapons of the Russian-Ukrainian war of 2022-2023: Handbook-catalogue of the main types of weapons and military equipment used by the opposing sides during the repulsion of the large-scale invasion of Ukraine by the Russian Federation (24.02.2022 - 30.06.2023) / Ministry of Defence of Ukraine, Office of the Commander-in-Chief of the Armed Forces of Ukraine, General Staff of the Armed Forces of Ukraine, Centre for Military History Research of the Armed Forces of Ukraine. - Kyiv: Lira-K Publishing House, 2023. - 243 p.

6. VP 3-00(102).56 Methodological Recommendations "List and Structure of Combat (Formalised) Documents on the COIN to be Practised in the Units of the Armed Forces of Ukraine at the Tactical Level during the Planning and Conduct of Combat (Actions)" (squad, platoon, company, battalion and their levels) - Kyiv: Main Doctrine and Training Directorate of the General Staff of the Armed Forces of Ukraine, edition 2022.

7. Temporary Procedure for Processing Operational (Combat) Documents. Order of the Commander-in-Chief of the Armed Forces of Ukraine of 11.09.2020 No. 140.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions and tests events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals of Combined Arms Combat.</b>					
1	Lecture	3	2	1	<p><b>Class 1: Composition, purpose of the Armed Forces of Ukraine and main types of weapons and military equipment.</b></p> <p>1. The order of passing the discipline.</p> <p>2. Composition and purpose of the branches of the Armed Forces of Ukraine. The use of the Armed Forces of Ukraine and branches of the armed forces in joint military operations.</p> <p>3. Combined arms combat, its components and their characteristics. Principles of combined arms combat.</p> <p><i>Independent work:</i> Composition, purpose of the Armed Forces of Ukraine and the main types of weapons and military equipment.</p> <p>1. Combined arms combat, its components and their characteristics. Tactical and technical characteristics of the main weapons of the Armed Forces of Ukraine.</p> <p>2. Rehearsing tactical manoeuvre schemes by units and fire.</p>

2	Group session	3	2	1	<p><b>Class 2: The procedure for practicing diagrams and combat graphic documents.</b></p> <ol style="list-style-type: none"> <li>1. Fundamentals of unit management in combat (tactical actions). The work of a squad (platoon, company) commander in preparing combat (actions) (according to the TLP structure).</li> <li>2. The procedure for developing schemes and designing a working map.</li> <li>3. The main tactical symbols and basic abbreviations used in combat graphic documents.</li> </ol> <p><i>Independent work:</i> Procedure for developing schemes, combat graphic documents.</p> <ol style="list-style-type: none"> <li>1. The symbols of the units of the Land Forces of the Armed Forces of Ukraine.</li> <li>2. Symbols of weapons and military equipment of the Land Forces of the Armed Forces of Ukraine.</li> </ol>
3	Lecture	3	2	1	<p><b>Class 3: Organisational structure, weapons and military equipment of units of a mechanised battalion of the Armed Forces of Ukraine.</b></p> <ol style="list-style-type: none"> <li>1. Purpose, organisational and staffing structure of units of a mechanised battalion.</li> <li>2. Forms and methods of using units based on the experience of the Russian-Ukrainian war.</li> </ol> <p><i>Independent work:</i> Organisational structure, weapons and military equipment of units of a mechanised battalion of the Armed Forces of Ukraine.</p> <ol style="list-style-type: none"> <li>1. Purpose, capabilities, organisational and staffing structure of logistics, technical and medical support units of a mechanised battalion.</li> <li>2. Developing a scheme of the organisational and staffing structure of a mechanised battalion.</li> </ol>
4	Group session	3	2	1	<p><b>Class 4. Tactics of actions of units of a mechanized battalion in the main types of combat (tactical actions).</b></p> <ol style="list-style-type: none"> <li>1. Structure of a defensive battle of a mechanised battalion and main tactical indicators.</li> <li>2. Construction of an offensive battle of a mechanised battalion and main tactical indicators.</li> <li>3. Construction of the marching order of the MB on the march and the main tactical indicators. The location of the MB on the ground and the main tactical indicators.</li> </ol> <p><i>Independent work:</i> Tactics of actions of units of a mechanised battalion in the main types of combat (tactical actions).</p> <ol style="list-style-type: none"> <li>1. Construction of the marching order of a mechanised battalion on the march and the main tactical indicators. Construction of defensive, offensive battle of a mechanised battalion and main tactical indicators.</li> <li>2. Location of the MB on site and key tactical indicators.</li> </ol>

5	Group session	3	2	1	<p><b>Class 5. Actions of soldiers and combat (tactical) groups in combat.</b></p> <p>1. Techniques and methods of action of a soldier and combat (tactical) groups in defensive (offensive) combat.</p> <p>2. Commands, signals given to control the actions of combat (tactical) groups in defensive (offensive) combat.</p> <p><i>Independent work:</i> Actions of a soldier, combat (tactical) groups in combat.</p> <p>1. Training in giving commands to control the actions of combat (tactical) groups in a defensive battle.</p> <p>2. Training in giving commands to control the actions of combat (tactical) groups in offensive combat.</p>
6	Group session	3	2	1	<p><b>Class 6. Techniques and methods of action of combat (tactical) groups during assault operations.</b></p> <p>1. Composition of the assault group, division into subgroups and their tasks.</p> <p>2. Tactics and methods of action of the trench entry subgroup.</p> <p>3. Techniques and methods of action of the fire support subgroup.</p> <p><i>Independent work:</i> Techniques and methods of action of combat (tactical) groups during assault operations. Preparation for the final control for the semester.</p> <p>1. Practice the diagram: Options for building an assault group's combat order.</p> <p>2. Training in issuing commands to control the actions of the capture subgroups and fire support during assault operations.</p>
7	Group session	3	2	1	<p><b>Class 7. Combat capabilities of mechanised units.</b></p> <p>1. General provisions. Capabilities of mechanised units to combat enemy armoured vehicles.</p> <p>2. Capabilities of mechanised units to destroy enemy manpower. Manoeuvring capabilities.</p> <p><i>Independent work:</i> Combat capabilities of mechanised units.</p> <p>1. Calculation of the combat capabilities of a mechanised unit by variants of the given sets of forces and means.</p> <p>2. Study of standards for Tactical Exercise of mechanised units.</p>
<b>Total for the topic</b>		<b>21</b>	<b>14</b>	<b>7</b>	
<b>Topic 2. Tactics of actions of a mechanised unit in the main types of combat (tactical actions).</b>					

8	Group session	3	2	1	<p><b>Class 1: Movement of the mechanised unit.</b></p> <ol style="list-style-type: none"> <li>1. General provisions for the movement of units.</li> <li>2. Peculiarities of movement of units on foot. Actions of personnel in combat tactical groups.</li> <li>3. Organisation of marching guard on the march: marching guard bodies, composition and tasks.</li> <li>4. Actions of units on the march.</li> </ol> <p><i>Independent work:</i> Movement of a mechanised unit.</p> <ol style="list-style-type: none"> <li>1. General provisions for the movement of units. Organisation of marching guard on the march. To work out the scheme "Actions of a foot patrol during reconnaissance (inspection) of local objects (objects) on the route of movement".</li> <li>2. Develop the following scheme: "Techniques of movement of units on foot".</li> </ol>
9	Group session	3	2	1	<p><b>Class 2. Location of the mechanised department on site.</b></p> <ol style="list-style-type: none"> <li>1. General provisions for the location of subdivisions, features of the location of the mechanised department.</li> <li>2. Organisation of direct protection. Actions of personnel as part of combat tactical groups, in direct protection bodies (patrols, secret).</li> <li>3. Watch guard, actions of the department in the watch guard.</li> </ol> <p><i>Independent work:</i> Location of the mechanised department on site.</p> <ol style="list-style-type: none"> <li>1. General provisions of the location of units .Watch guard, actions of the unit in the watch guard. Duties of the observer.</li> <li>2. Work out the following scheme: "Actions of a mechanised unit as a sentry post".</li> </ol>
10	Group session	3	2	1	<p><b>Class 3: Defence of a mechanised unit.</b></p> <ol style="list-style-type: none"> <li>1. General principles of defensive combat. Place and role of the mechanised unit in defensive combat.</li> <li>2. Building a defensive battle of a mechanised unit.</li> <li>3. Preparation of a defensive battle.</li> <li>4. Conducting defensive combat. Actions of the unit with division into combat groups.</li> </ol> <p><i>Independent work:</i> Defence of a mechanised unit.</p> <ol style="list-style-type: none"> <li>1. General provisions of defensive combat. To work out the scheme: "Construction of a defensive battle of a mechanised unit".</li> <li>2. Contents of the squad fire card.</li> </ol>

11	Group session	3	2	1	<p><b>Class 4. Peculiarities of using a mechanised branch in an urban area.</b></p> <ol style="list-style-type: none"> <li>1. Procedure for movement within combat tactical groups in a settlement.</li> <li>2. Features of movement inside the building.</li> <li>3. Features of building defence as part of combat tactical groups.</li> </ol> <p><i>Independent work:</i> Peculiarities of using a mechanised department in an urban area.</p> <ol style="list-style-type: none"> <li>1. To practice schemes of variants of combat orders of a mechanised squad as part of combat (tactical) groups during operations in urban areas.</li> <li>2. Defence of the house</li> </ol>
12	Group session	3	2	1	<p><b>Class 5. Offensive of the mechanised division. Final control (test) for the semester.</b></p> <ol style="list-style-type: none"> <li>1. General principles of offensive combat. Place and role of the mechanised squad in the offensive battle. Construction of an offensive battle of a mechanised squad.</li> <li>2. Preparation of an offensive battle.</li> <li>3. Conducting offensive combat. Actions of the unit with division into combat groups.</li> </ol> <p><i>Independent work:</i> The offensive of the mechanised division.</p> <ol style="list-style-type: none"> <li>1. Combat formations of a mechanised division in the offensive.</li> <li>2. To work out the schemes of variants of the construction of the combat order of a mechanised squad in the offensive with the division into combat groups.</li> </ol>
<b>FIELD TRAINING</b>					
13	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TEF "Actions of a mechanised unit while moving on foot".</p> <ol style="list-style-type: none"> <li>1. Training in giving commands to change marching orders.</li> <li>2. Training in hand signalling while moving on foot.</li> <li>3. Study of the conditions for meeting Tactical Exercise standards within the unit.</li> </ol> <p><b>Class 6. Actions of a mechanised unit when moving on foot.</b></p> <ol style="list-style-type: none"> <li>1. Techniques of movement on foot, when approaching the enemy.</li> <li>2. Actions of the sentry unit.</li> </ol>

14	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TSE "Actions of a mechanised unit during location on site".</p> <ol style="list-style-type: none"> <li>1. Training in setting tasks (observer, patrol, secret).</li> <li>2. Learning the procedure for repelling an attack by a sabotage and reconnaissance unit.</li> <li>3. Study of the conditions for meeting Tactical Exercise standards within the unit.</li> </ol> <p><b>Class 7. Actions of a mechanised unit while in place.</b></p> <ol style="list-style-type: none"> <li>1. Engineering equipment, camouflage of elements of the location area.</li> <li>2. Actions of the security authorities.</li> </ol>
15	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TSE "Management of actions of a mechanised unit in a defensive battle".</p> <ol style="list-style-type: none"> <li>1. Training in issuing commands to control the actions of the squad and fire in defensive combat.</li> <li>2. Study of the conditions for meeting Tactical Exercise standards. Preparation of training sites.</li> </ol> <p><b>Class 8. Controlling the actions of a mechanised unit in a defensive battle.</b></p> <ol style="list-style-type: none"> <li>1. Preparation of a defensive battle. Fulfilment of tactical (engineering) training standards.</li> <li>2. Management of the unit's actions in combat. Fulfilment of Tactical Exercise standards.</li> </ol>
16	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TSE "Management of actions of a mechanised unit in offensive combat".</p> <ol style="list-style-type: none"> <li>1. Training in issuing commands to control the actions of the squad and fire in offensive combat.</li> <li>2. Study of the conditions for meeting Tactical Exercise standards. Preparation of training sites.</li> <li>3. To work out the schemes of variants of building the combat order of a mechanised squadron in the offensive with the division into combat groups.</li> </ol> <p><b>Class 9. Controlling the actions of a mechanised unit in an offensive battle.</b></p> <ol style="list-style-type: none"> <li>1. Preparation of an offensive battle. Fulfilment of Tactical Exercise standards.</li> <li>2. Management of the unit's actions in combat. Fulfilment of Tactical Exercise standards.</li> </ol>
17	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TOC "Management of actions of a mechanised unit in an urban area".</p> <ol style="list-style-type: none"> <li>1. Learning the rules of tactical actions. Watching training films.</li> <li>2. Preparation of training places.</li> </ol> <p><b>Class 10. Managing the actions of a mechanised unit in an urban area.</b></p> <ol style="list-style-type: none"> <li>1. Procedure for movement within combat tactical groups in a settlement.</li> <li>2. Actions of combat tactical groups inside the building.</li> </ol>

18	Tactical-Drill exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TSE "Management of actions of a mechanised unit during night operations".</p> <ol style="list-style-type: none"> <li>1. Training in giving signals (sound, light) to control the actions of the squad and fire in offensive combat.</li> <li>2. Study of the characteristics and operation of night vision devices, thermal imagers and other technical means of reconnaissance and surveillance. Preparation of training places.</li> </ol> <p><b>Class 11. Managing the actions of a mechanised unit when performing tasks at night.</b></p> <ol style="list-style-type: none"> <li>1. Transition to night actions.</li> <li>2. Tactical actions of the unit by type of combat.</li> <li>3. Performing tactical actions (tasks) of reconnaissance (surveillance, eavesdropping) and security with the use of technical means of reconnaissance and surveillance.</li> </ol>
<b>Total for the topic</b>		<b>33</b>	<b>22</b>	<b>11</b>	
<b>Topic 3: Tactics of a mechanised platoon in the main types of tactical operations.</b>					
19	Group session	3	2	1	<p><b>Class 1: March of a mechanised platoon and actions in marching guard.</b></p> <ol style="list-style-type: none"> <li>1. General provisions. The experience of the Russian-Ukrainian war.</li> <li>2. Preparing the platoon for the march.</li> <li>3. Peculiarities of preparing a platoon for actions in marching guard.</li> <li>4. Management of platoon actions in marching guard.</li> </ol> <p><i>Independent work:</i> March of a mechanised platoon and actions in marching guard.</p> <ol style="list-style-type: none"> <li>1. Actions of platoon units when ambushed.</li> <li>2. Develop the following schemes: "Areas and boundaries assigned to the platoon during the march"; "Construction of the platoon's marching order when moving as part of the main force".</li> </ol>
20	Group session	3	2	1	<p><b>Class 2. Positioning of a mechanised platoon on the ground and actions in sentry duty.</b></p> <ol style="list-style-type: none"> <li>1. General provisions. The experience of the Russian-Ukrainian war.</li> <li>2. Prepare the platoon for deployment.</li> <li>3. Peculiarities of preparing a platoon for actions in sentry duty.</li> <li>4. Management of platoon actions in guard posts and other security bodies.</li> </ol> <p><i>Independent work:</i> Positioning of a mechanised platoon on the ground and actions in sentry duty.</p> <ol style="list-style-type: none"> <li>1. Peculiarities of the location of units in base camps.</li> <li>2. Rehearse the following diagrams: "Location of a mechanised platoon in place within a company", "Actions of a mechanised platoon in a sentry outpost".</li> </ol>

21	Group session	3	2	1	<p><b>Class 3. Participation in stabilisation operations and other tasks.</b></p> <p>1. Peculiarities of participation of troops in stabilisation operations.</p> <p>2. Peculiarities of participation in the performance of other tasks specified by the legislation of Ukraine.</p> <p><i>Independent work:</i> Participation in stabilisation operations and other tasks.</p> <p>1. Peculiarities of preparing a platoon for participation in stabilisation operations.</p> <p>2. Develop the following schemes: "Participation of a mechanised platoon in the search for enemy subversive forces and illegal armed groups", "Participation of a mechanised platoon in the protection and defence of important objects and communications".</p>
<b>Total for the topic</b>		<b>9</b>	<b>6</b>	<b>3</b>	
<b>Topic 4. Tactics of a mechanised platoon in a defensive battle.</b>					
22	Lecture	3	2	1	<p><b>Class 1: Mechanised platoon in defensive combat.</b></p> <p>1. Place, tasks of a mechanised platoon in a defensive battle.</p> <p>2. Building the defence of a mechanised platoon.</p> <p>3. Defensive combat.</p> <p><i>Independent work:</i> A mechanised platoon in defensive combat.</p> <p>1. Place and tasks of a mechanised platoon in a defensive battle. Study the experience of using mechanised units in defensive combat during the Russian-Ukrainian war.</p> <p>2. Practice the diagram: "Diagram of a mechanised platoon's stronghold".</p>

23	Group session	4	2	2	<p><b>Class 2: Preparing for a defensive battle.</b></p> <ol style="list-style-type: none"> <li>1. Organisation of the battle.</li> <li>2. Preparing units for combat.</li> <li>3. Take up the defence and prepare the platoon's stronghold.</li> <li>4. Practical work of the platoon commander in subordinate units.</li> </ol> <p><i>Independent work:</i> Preparing a defensive battle.</p> <ol style="list-style-type: none"> <li>1: Peculiarities of the work of a mechanised platoon commander depending on the conditions of transition to defence.</li> <li>2. Combat documents developed by the platoon in preparation for defensive combat.</li> <li>3) Preparation of abstracts and reports for the seminar.</li> </ol> <p><i>Independent work:</i> Preparation for the seminar. Preparation and conduct of defensive combat in special conditions.</p> <ol style="list-style-type: none"> <li>1. Definition (purpose) of a defensive battle. The place of a mechanised platoon in a defensive battle. Sequential execution of defensive combat tasks.</li> <li>2. Preparation and conduct of defensive combat of mechanised units based on the experience of the Russian-Ukrainian war.</li> <li>3. Preparation and conduct of defensive combat of mechanised units in special conditions.</li> </ol>
24	Seminar session	2	2		<p><b>Class 3: Preparation and conduct of defensive combat in special conditions.</b></p> <ol style="list-style-type: none"> <li>1. Definition (purpose) of a defensive battle. The place of a mechanised platoon in a defensive battle. Sequential execution of defensive combat tasks.</li> <li>2. Preparation and conduct of defensive combat of mechanised units based on the experience of the Russian-Ukrainian war.</li> <li>3. Preparation and conduct of defensive combat of mechanised units in special conditions.</li> </ol>
<p><b>A set of Group sessions on the topic: "Transition of a mechanised platoon to defence in the absence of a collision with the enemy. Defensive combat".</b></p>					

25	Group session	3	2	1	<p><i>Independent work:</i> Preparation for a Group Session. "Preparing a mechanised platoon for defence in the absence of a collision with the enemy".</p> <ol style="list-style-type: none"> <li>1. Study of the tactical task. Preparation of a working map, drawing the initial situation.</li> <li>2. The content of the platoon leader's work in understanding the task, calculating time, and assessing the situation.</li> <li>3. Contents of the paragraphs of the preliminary combat order.</li> </ol> <p><b>Class 4. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 1, 2.</b></p> <ol style="list-style-type: none"> <li>1. Understand the task at hand.</li> <li>2. Calculating the time. Assessment of the situation.</li> <li>3. Development of the first preliminary combat order.</li> <li>4. Communicating the first preliminary combat order to subordinates.</li> </ol>
26	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 1, 2.</p> <ol style="list-style-type: none"> <li>1. Record the results of the task awareness on the platoon leader's work card. Finalising the time calculation</li> <li>2. Training in communicating the first preliminary combat order.</li> </ol> <p><b>Class 5. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 3: "Development of a preliminary plan".</b></p> <ol style="list-style-type: none"> <li>1. Analysis of the task.</li> <li>2. Developing options for action.</li> </ol>
27	Group session	3	2	1	<p><i>Independent work:</i> Preparing a mechanised platoon for defence in the absence of an enemy engagement. Stage 3: "Development of a preliminary plan".</p> <ol style="list-style-type: none"> <li>1. Analysing the options for action. Comparison and selection of the final course of action</li> <li>2. Development of the battle plan. Preparation of a working map for the report of the plan.</li> </ol> <p><b>Class 6. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 3: "Development of a preliminary plan".</b></p> <ol style="list-style-type: none"> <li>1. Report on the battle plan.</li> <li>2. Practice the second preliminary combat order.</li> </ol>

28	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 6: "Completion of battle planning".</p> <ol style="list-style-type: none"> <li>1. Formulation of combat missions.</li> <li>2. Details of management and interaction issues.</li> <li>3. Detailing the issues of comprehensive support for actions.</li> </ol> <p><b>Class 7. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Stage 7: "Issuing a combat order".</b></p> <ol style="list-style-type: none"> <li>1. Issuing a combat order.</li> <li>2. Setting combat tasks for subordinates.</li> </ol>
<b>FIELD TRAINING</b>					
29	Tactical exercise	6	4	2	<p><i>Independent work:</i> Preparation for the task "Preparation of a mechanized platoon for defence in the absence of collision with the enemy". Stage 5, 7.</p> <ol style="list-style-type: none"> <li>1. Completion of a combat order. Training in setting combat tasks for subordinates.</li> <li>2. Content of the reconnaissance.</li> <li>3. Preparation of a working map, devices for mapping the situation for work in the field. Preparation of equipment.</li> </ol> <p><b>Class 8. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Phase 5, 7.</b></p> <ol style="list-style-type: none"> <li>1. Conducting a reconnaissance.</li> <li>2. Issue a combat order.</li> </ol>
30	Tactical exercise	3	2	1	<p><i>Independent work:</i> Preparation for the task "Preparation of a mechanised platoon for defence in the absence of a collision with the enemy". Stage 4, 8.</p> <ol style="list-style-type: none"> <li>1. Training in setting combat tasks for subordinates on the ground (on a terrain model).</li> <li>2. Content of the organisation of management, interaction and comprehensive support on the terrain layout.</li> <li>3. Development of call sign forms for officials, tables of control and interaction signals.</li> </ol> <p><b>Class 9. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Phase 4, 8.</b></p> <ol style="list-style-type: none"> <li>1. Prepare the terrain layout.</li> <li>2. Organisation of management, interaction and comprehensive support on the terrain layout.</li> </ol>

31	Tactical-Drill exercise	6	4	2	<p><i>Independent work:</i> Preparation for the TPE "Preparation of a mechanised platoon for defence in the absence of a collision with the enemy". Stage 4, 8.</p> <p>1. Study of the conditions for the implementation of Tactical Exercise standards in a platoon (squad) in defensive combat.</p> <p>2. Preparation of training sites and training leaders at training sites.</p> <p><b>Class 10. Preparation of a mechanised platoon for defence in the absence of a collision with the enemy. Phase 4, 8.</b></p> <p>1. Unit preparation and movement. Checking readiness. Fulfilment of Tactical Exercise standards as part of a platoon (squad).</p>
32	Tactical exercise	3	2	1	<p><i>Independent work:</i> Preparation for the task "Management of actions of a mechanized platoon in the course of defensive combat".</p> <p>1. Refine the working map.</p> <p>2. Prepare a table of call signs, a table of control and interaction signals.</p> <p><b>Class 11. Controlling the actions of a mechanised platoon in defensive combat.</b></p> <p>1. Platoon management in defensive combat: destruction of enemy intelligence; inflicting damage on the advancing enemy; fighting an attacking enemy; Destruction of the enemy trying to bypass or break into the platoon stronghold.</p> <p>2. Fighting in the trenches, participating in a counterattack.</p>
33	Tactical exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TOR "Management of actions of a mechanised platoon during a defensive battle at night".</p> <p>1. Light support for defensive combat at night. Developing guidelines for preparing a platoon for night operations. Refinement of the working map on light support.</p> <p>2. Revision of the table of control signals and interaction on lighting issues</p> <p><b>Class 12. Controlling the actions of a mechanised platoon in defensive combat at night.</b></p> <p>1. Transition to night operations. Preparing units for defensive combat at night.</p> <p>2. Platoon management during a defensive battle at night: - destruction of enemy reconnaissance; - defeat of the advancing enemy; - fighting with the attacking enemy; - destruction of the enemy trying to bypass or break into the platoon stronghold.</p>
<b>Total for the topic</b>		<b>42</b>	<b>28</b>	<b>14</b>	

<b>Topic 5. Tactics of a mechanised platoon in an offensive battle.</b>					
34	Lecture	3	2	1	<p><b>Class 1: Mechanised platoon attack.</b></p> <ol style="list-style-type: none"> <li>1. Place and role of a mechanised platoon in an offensive battle.</li> <li>2. Tasks of a mechanised platoon in an offensive battle, their content.</li> <li>3. Combat order, system of fire of a mechanized platoon in offensive combat.</li> <li>4. Conducting offensive combat.</li> </ol> <p><i>Independent work.</i> Advance of a mechanised platoon.</p> <ol style="list-style-type: none"> <li>1. Place and role of the mechanised platoon in an offensive battle. Tasks of a mechanised platoon in an offensive battle.</li> <li>2. Study the experience of using mechanised units in offensive combat during the Russian-Ukrainian war.</li> <li>3) Rehearse the scheme: "Actions of a mechanised platoon in an offensive battle".</li> </ol>
35	Group session	4	2	2	<p><b>Class 2: Preparing and conducting offensive combat.</b></p> <ol style="list-style-type: none"> <li>1. Features of the work of the platoon commander in planning an offensive battle.</li> <li>2. Peculiarities of managing platoon actions in offensive combat.</li> </ol> <p><i>Independent work:</i> Preparing and conducting offensive combat.</p> <ol style="list-style-type: none"> <li>1. Develop the following scheme: "Areas and boundaries to be assigned in an offensive with a deep advance".</li> <li>2. Rehearse the following scheme: "The order of regrouping, replacement for taking the initial position in the offensive from the position of direct contact with the enemy".</li> <li>3. Preparation of abstracts and reports for the seminar.</li> </ol> <p><i>Independent work:</i> Preparation for the seminar. Preparation and conduct of offensive combat in special conditions.</p> <ol style="list-style-type: none"> <li>1. Definition (purpose) of an offensive battle. The place of the mechanised platoon in an offensive battle. Sequential execution of offensive combat tasks.</li> <li>2. Preparation and conduct of offensive combat of mechanised units based on the experience of the Russian-Ukrainian war.</li> <li>3. Preparation and conduct of offensive combat of mechanised units in special conditions.</li> </ol>

36	Seminar session	2	2		<p><b>Class 3: Preparing and conducting offensive combat in special conditions.</b></p> <p>1. Definition (purpose) of an offensive battle. The place of the mechanised platoon in an offensive battle. Sequential execution of offensive combat tasks.</p> <p>2. Preparation and conduct of offensive combat of mechanised units based on the experience of the Russian-Ukrainian war.</p> <p>3. Preparation and conduct of offensive combat of mechanised units in special conditions.</p>
<b>A set of Group sessions on the topic: "Advance of a mechanised platoon with a move from depth".</b>					
37	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for an offensive with a move from depth. Stage 1, 2.</p> <p>1. Study of the tactical task. Preparation of a working map, drawing the initial situation.</p> <p>2. The content of the platoon leader's work in understanding the task, calculating time, and assessing the situation.</p> <p>3. Contents of the paragraphs of the preliminary combat order.</p> <p><b>Class 4. Preparation of a mechanised platoon for an advance from depth. Phase 1, 2.</b></p> <p>1. Understand the task at hand.</p> <p>2. Calculating the time. Assessment of the situation.</p> <p>3. Development of the first preliminary combat order.</p> <p>4. Communicating the first preliminary combat order to subordinates.</p>
38	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for an attack from depth. Stage 3: "Development of a preliminary plan".</p> <p>1. Record the results of task awareness on the platoon commander's working card. Finalisation of the time calculation, preliminary combat order.</p> <p>2. Training in the delivery of the first preliminary combat order (PCO 1).</p> <p><b>Class 5. Preparation of a mechanised platoon for an attack from depth. Stage 3: "Development of a preliminary plan".</b></p> <p>1. Analysis of the task.</p> <p>2. Developing options for action.</p>

39	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for an offensive with a move from depth. Stage 3: Development of a preliminary plan.</p> <ol style="list-style-type: none"> <li>1. Analysing the options for action. Comparison and selection of the final course of action</li> <li>2. Development of the battle plan. Preparation of a working map for the report of the plan.</li> </ol> <p><b>Class 6. Preparing a mechanised platoon for an advance from depth. Stage 3: "Developing a preliminary plan"</b></p> <ol style="list-style-type: none"> <li>1. Report on the battle plan.</li> <li>2. Practice the second preliminary combat order.</li> </ol>
40	Group session	3	2	1	<p><i>Independent work:</i> Preparation of a mechanised platoon for an attack from depth. Stage 6: "Completion of battle planning"</p> <ol style="list-style-type: none"> <li>1. Formulation of combat missions.</li> <li>2. Details of management and interaction issues.</li> <li>3. Detailing the issues of comprehensive support for actions.</li> </ol> <p><b>Class 7. Preparation of a mechanised platoon for an advance from depth. Stage 7: "Issuing a combat order".</b></p> <ol style="list-style-type: none"> <li>1. Issuing a combat order.</li> <li>2. Setting combat tasks for subordinates.</li> </ol>
<b>FIELD ACCESS</b>					
41	Tactical exercise	4	2	2	<p><i>Independent work:</i> Preparation for the task "Preparation of a mechanised platoon for an offensive with a move from depth". Stage 5, 7.</p> <ol style="list-style-type: none"> <li>1. Completion of a combat order. Training in setting combat tasks for subordinates.</li> <li>2. Content of the reconnaissance.</li> <li>3. Preparation of a working map, devices for mapping the situation for work in the field. Preparation of equipment.</li> </ol> <p><b>Class 8. Preparation of a mechanised platoon for an advance from depth. Phase 5, 7.</b></p> <ol style="list-style-type: none"> <li>1. Conducting a reconnaissance.</li> <li>2. Issuance of a combat order.</li> </ol>

42	Tactical exercise	3	2	1	<p><i>Independent work:</i> Preparation for the task "Preparation of a mechanised platoon for an offensive with a deep advance". Stage 4, 8.</p> <ol style="list-style-type: none"> <li>1. Training in setting combat tasks for subordinates on the ground (on a terrain model).</li> <li>2. Content of the organisation of management, interaction and comprehensive support on the terrain layout.</li> <li>3. Development of call sign forms for officials, tables of control and interaction signals.</li> </ol> <p><b>Class 9. Preparation of a mechanised platoon for an advance from depth. Phase 4, 8.</b></p> <ol style="list-style-type: none"> <li>1. Prepare the terrain layout.</li> <li>2. Organisation of management, interaction and comprehensive support on the terrain layout.</li> </ol>
43	Tactical-Drill exercise	5	2	3	<p><i>Independent work:</i> Preparation for the TPE "Preparation of a mechanised platoon for an offensive with a deep advance". Phase 4, 8.</p> <ol style="list-style-type: none"> <li>1. Study of the conditions for the implementation of Tactical Exercise standards in a platoon (squad) in an offensive battle.</li> <li>2. Preparation of training sites and training leaders at training sites.</li> </ol> <p><b>Class 10. Preparation of a mechanised platoon for an advance from depth. Stage 4.8.</b></p> <ol style="list-style-type: none"> <li>1. Unit preparation and movement. Checking readiness. Fulfilment of Tactical Exercise standards as part of a platoon (squad).</li> </ol> <p><i>Independent work:</i> Preparation for the task "Management of actions of a mechanised platoon during an offensive battle".</p> <ol style="list-style-type: none"> <li>1. Refine the working map.</li> <li>2. Prepare a table of call signs, a table of control and interaction signals.</li> </ol>
44	Tactical exercise	2	2		<p><b>Class 11. Controlling the actions of a mechanised platoon in an offensive battle.</b></p> <ol style="list-style-type: none"> <li>1. Platoon management during offensive combat: <ul style="list-style-type: none"> <li>platoon management during the advance from the depths;</li> <li>platoon management during the attack on the front line of enemy defence and the capture of the object of attack. Fighting in trenches;</li> <li>platoon management during combat in the depths of enemy defence.</li> </ul> </li> <li>2. Managing a platoon in pursuit of the enemy. Securing a favourable position.</li> </ol>

45	Tactical exercise	3	2	1	<p><i>Independent work:</i> Preparation for the TK "Management of actions of a mechanised platoon during an offensive battle at night".</p> <ol style="list-style-type: none"> <li>1. Light support for offensive combat at night. Developing guidelines for preparing a platoon for night operations. Finalising the working map on lighting support.</li> <li>2. Revision of the table of control signals and interaction on lighting issues</li> </ol> <p><b>Exercise 12. Managing the actions of a mechanised platoon during an offensive battle at night.</b></p> <ol style="list-style-type: none"> <li>1. Transition to night operations. Preparing units for offensive combat at night.</li> <li>2. Platoon management during offensive combat at night: platoon management during the advance from the depths; platoon management during the attack on the front line of enemy defence and the capture of the object of attack. Combat in trenches; platoon management during combat in the depths of enemy defence.</li> </ol>
46		1		1	<p><i>Independent work:</i> Completion of preparation for the final control - EXAM.</p> <ol style="list-style-type: none"> <li>1. General provisions (fundamentals) of offensive combat, defensive combat, movement of units, positioning in place, participation in stabilisation actions of troops, comprehensive support of combat (actions).</li> <li>2. The sequence and content of the work of the mechanised platoon (squad) commander in preparing for combat in accordance with the 8 stages of TLP (Troop Leading Procedures). Management in the course of combat (actions)</li> <li>3. Organisational and staffing structure, technical specifications of weapons and military equipment of the units of the Land Forces of the Armed Forces of Ukraine (<i>MB, MR, Mv, MvD, RVP, Gv, Kulv, Ptv, Zrv, Tv</i>).</li> <li>4. Preparation of combat documents, basic tactical signs, and abbreviations.</li> </ol>
<b>Total for the topic</b>		<b>38</b>	<b>24</b>	<b>14</b>	
<b>Assessment activities</b>		<b>6</b>	<b>6</b>		<b>Examination</b>
<b>Total for the educational component</b>		<b>150</b>	<b>100</b>	<b>50</b>	

#### 4.4. EP 1.4 "Fundamentals of Military Management (including the Troop Leading Procedures) TROOP LEADING PROCEDURES)"

##### **General objective of the educational programme component**

Providing primary knowledge and skills of a military management officer capable of professional military management of a unit, timely making informed management decisions in the organisation of combat, including NATO standards.

As a result of studying the discipline, students (trainees) should:

*to know:*

- basics and principles of the theory of command and control;
- the procedure for planning, organising and controlling the performance of official tasks;
- the content of assessing the situation, developing a plan, making a decision, setting tasks for subordinates, organising management and interaction;
- the content and procedure of comprehensive support measures;
- methodology and procedure for developing textual and graphic combat documents;
- methods of work of command and control bodies in organising and planning combat operations, their features, disadvantages and advantages;
- a methodology for assessing the combat capabilities of a mechanised platoon;
- content of the management activities of the mechanised platoon commander according to Troop Leading Procedures (TLP);
- the procedure for receiving a combat task and communicating a preliminary combat order under TLP procedures;

*be able to:*

- to carry out measures to organise combat;
- organise comprehensive support measures;
- assess the situation, develop a plan, make decisions, and set tasks for subordinates;
- develop text and graphic combat documents;
- choose the means of implementing the decision-making process;
- to organise the work of the command and control body in planning combat operations using various methods;

assess the combat capabilities of a mechanised platoon;  
to set combat tasks and check readiness for their execution according to TLP procedures.

### **Organisational and methodological guidelines**

The discipline is designed to develop in servicemen organisational skills in managing units, professional skills in preparing and organising combat (combat use), developing a staff culture, the ability to assess the situation efficiently and quickly, develop proposals and conclusions, and the ability to report them briefly and clearly.

It is mandatory to systematically consolidate the knowledge and skills acquired in the course of studying the discipline during practical and group classes.

In the course of studying the discipline, to cultivate strong will, confidence in conducting measures for the organisation of combat operations (combat use), high military discipline, patriotism, a sense of personal responsibility for the organisation of the ability, including making responsible decisions, perseverance and determination to implement them.

The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in class under the guidance of a scientific and pedagogical employee.

During all forms of training, individual, group and frontal methods of knowledge control and active learning methods are used. The current control is carried out in the form of an oral survey or written express control during the training sessions.

Classrooms, computer labs, multimedia equipment, visual teaching aids, and writing utensils are used for all types of classes.

### **Information and methodological support**

1. The general military regulations of the Armed Forces of Ukraine.
2. Fundamentals of Military Management. Part I. The work of the unit commander on the organisation of combat: a textbook / P. Tkachuk, I. Repin, V. Ozharevskyi. Lviv: NASV, 2017.
3. Fundamentals of military management. Part II. Euro-Atlantic procedures and standards of unit management: a textbook / I. Repin, V. Ozharevskyi. Lviv: NASV, 2018.
4. Fundamentals of Military Command Theory and NATO Staff Procedures: a textbook / V. Varakuta, I. Rolin, D. Dyachenko - Kharkiv: VITV NTU "KHPI", 2019.
5. Fundamentals of management according to NATO standards: a textbook / I. Rolin, D. Dyachenko, V. Marushchenko - Kharkiv: VITV NTU "KHPI", 2021.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training classes, control events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic № 1. Fundamentals of command and control and the process of preparing for combat.</b>					
1	Lecture	2	2		<b>Class № 1. Fundamentals of the theory of troop management.</b> 1. Subject and content of the discipline. 2. Definition, purpose, tasks and functions of force management. 3. Troop management system and its elements.
2	Lecture	2	2		<b>Class № 2. Laws and Principles of Troop Management.</b> 1. Laws of command and control of troops and their essence. 2. Principles of troop management and their content. 3. Requirements for troop management.
3	Seminar	2	2		<b>Class № 3. The essence and content of troop management.</b> 1. The content of laws on the management of troops. 2. Content and essence of the principles of command and control. 3. Tasks and functions of troop management.
4	Lecture	2	2		<b>Class № 4. The content of the commander's management activity.</b> 1. Measures to organise combat operations (combat use). 2. The content of combat mission awareness and time calculation. 3. Content and procedure for issuing preliminary orders. 4. The essence of the situation assessment.

5	Group session	2	2	<p><b>Class № 5. Procedure for the implementation of measures to organise combat operations (combat use).</b></p> <ol style="list-style-type: none"> <li>1. Content and procedure for assessing the enemy.</li> <li>2. The content and procedure for evaluating your unit (troops).</li> <li>3. The content of the neighbourhood assessment.</li> </ol>
6	Lecture	2	2	<p><b>Class № 6. Decision-making is the basis of force management.</b></p> <ol style="list-style-type: none"> <li>1. The decision of the commander (chief), its essence and content. Requirements for the commander's decision.</li> <li>2. The essence and content of combat planning (combat employment).</li> <li>3. Reconnaissance by the unit commander.</li> </ol>
7	Group session	1	1	<p><b>Class № 7. The content of the commander's decision-making work.</b></p> <ol style="list-style-type: none"> <li>1. Features of decision-making in combat conditions. Factors influencing decision-making.</li> <li>2. Methods that facilitate independent combat decision-making.</li> </ol>
8	Lecture	2	2	<p><b>Class № 8. The procedure for setting tasks for subordinates. Organisation of interaction and preparation of units for the implementation of tasks.</b></p> <ol style="list-style-type: none"> <li>1. The procedure for assigning combat tasks to subordinates. Combat order, combat order, their structure and content.</li> <li>2. The essence, content, forms, types and procedure for organising interaction.</li> <li>3. Preparing units for the execution of tasks.</li> </ol>
9	Group session	1	1	<p><b>Class № 9. The procedure for setting combat tasks and preparing units for their execution.</b></p> <ol style="list-style-type: none"> <li>1. The procedure for drawing up a combat order, its structure and content.</li> <li>2. Procedure for organising interaction and combat support.</li> <li>3. Procedure for organising management and communication.</li> </ol>
<b>Total for the topic</b>		<b>16</b>	<b>16</b>	
<b>Topic 2. Combat text and graphic documents.</b>				
10	Lecture	2	2	<p><b>Class № 1. The procedure for developing textual combat documents.</b></p> <ol style="list-style-type: none"> <li>1. Combat documents, their classification and requirements.</li> <li>2. Requirements for the design of textual combat documents.</li> </ol>
11	Practical session	2	2	<p><b>Class № 2. The work of a platoon commander in issuing a combat order.</b></p> <ol style="list-style-type: none"> <li>1. Collecting and forming the initial data for the preparation of a combat order.</li> <li>2. Practical execution of a combat order.</li> </ol>

12	Lecture	2	2		<b>Class № 3. The procedure for developing graphic combat documents.</b> 1. Features of the design of graphic combat documents. 2. Methods of drawing up graphic planning documents.
13	Practical session	5	4	1	<b>Class 4. Preparation and execution of graphic combat documents for work.</b> 1. Glue and fold the map. 2. Add the details to the card. <i>Independent work.</i> 1. Raising the topographic base of the map. 2. Prepare and design the cover page.
14	Lecture	3	2	1	<b>Class 5. Military symbols.</b> 1. Procedure for the construction of military symbols. 2. Detailed requirements for the application of military symbols, technical specification of symbols. <i>Independent work.</i> 1. Military symbols for weapons and military equipment. 2. Military symbols for command and control of troops. 3. Military symbols of military formations of branches of the armed forces and services.
15	Practical session	4	4		<b>Class 6. The use of military symbols for combat documents.</b> 1. Application of military symbols on graphic combat documents. 2. Marking of troop Assessment activities.
<b>Total for the topic</b>		<b>18</b>	<b>16</b>	<b>2</b>	
<b>Topic№ 3. Management activities of a mechanised platoon commander.</b>					
16	Lecture	2	2		<b>Class № 1. Combat capabilities of a mechanised platoon.</b> 1. The concept of combat capabilities and their components. 2. The concept of firepower. 3. The concept of impact force. 4. The concept of manoeuvrability.
17	Practical session	2	2		<b>Class№ 2. Assessment of the combat capabilities of a mechanised platoon.</b> 1. Preparation of initial data for calculating the combat capabilities of a mechanised platoon. 2. Calculate the firepower of a mechanised unit.

18	Lecture	2	2	<p><b>Class № 3. Types of comprehensive support and their content.</b></p> <ol style="list-style-type: none"> <li>1. The concept of comprehensive coverage and its components.</li> <li>2. General characteristics of medical care.</li> <li>3. General characteristics of logistics support.</li> <li>4. Classification of equipment according to NATO standards.</li> </ol>
19	Group session	2	2	<p><b>Class № 4. Organisation of support for combat operations.</b></p> <ol style="list-style-type: none"> <li>1. Organisation of intelligence.</li> <li>2. Organisation of CBRN protection.</li> <li>3. Organisation of engineering support.</li> <li>4. Organisation of tactical camouflage.</li> <li>5. Organisation of security.</li> </ol>
<b>Total for the topic</b>		<b>8</b>	<b>8</b>	
<b>See № 4. The work of a mechanised platoon commander in preparing for combat according to NATO standards.</b>				
20	Lecture	2	2	<p><b>Class 1. The content of the management activities of a mechanised platoon commander according to TLP procedures.</b></p> <ol style="list-style-type: none"> <li>1. Stages of the battle preparation process.</li> <li>2. Components of the stages of the battle preparation process.</li> </ol>
21	Group session	2	2	<p><b>Class 2. Receiving a combat task and communicating a preliminary combat order according to TLP procedures.</b></p> <ol style="list-style-type: none"> <li>1. Receiving a combat mission (the first stage of the combat preparation process).</li> <li>2. Communicating the preliminary combat order (the second stage of the combat preparation process).</li> </ol>
22	Lecture	4	4	<p><b>Class № 3. The procedure for developing a preliminary battle plan according to the TLP procedure.</b></p> <ol style="list-style-type: none"> <li>1. Content and procedure of work at the task analysis stage.</li> <li>2. Content and procedure of work at the stage of developing action options.</li> </ol>
23	Group session	2	2	<p><b>Class № 4. Developing a preliminary plan and preparing the unit for relocation according to TLP procedures.</b></p> <ol style="list-style-type: none"> <li>1. The content and procedure of the process of comparing and selecting the final option.</li> <li>2. The content and procedure of work in the course of preparing the unit for relocation.</li> </ol>

24	Lecture	2	2	<p><b>Class 5. The procedure for conducting reconnaissance and completing battle planning according to TLP procedures.</b></p> <p>1. Content and procedure of work during reconnaissance. 2. Content and procedure for completing battle planning.</p>
25	Lecture	2	2	<p><b>Class 6. The procedure for setting combat tasks and checking readiness to perform them according to TLP procedures.</b></p> <p>1. The procedure for drawing up a combat order, its structure and content. 2. Measures to verify readiness.</p>
26	Group session	2	2	<p><b>Class 7. Commander's work during combat (operations) according to NATO standards.</b></p> <p>1. Management of a unit during combat (operations). 2. Fire control of the unit. 3. Analysis of the battle.</p>
<b>Total for the topic</b>		<b>16</b>	<b>16</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>	<b>Credit</b>
<b>Total for the educational component</b>		<b>60</b>	<b>58</b>	<b>2</b>

#### 4.5. EP 1.5 "Management of day-to-day operations of the units"

##### **General objective of the educational programme component**

Training of an officer who is able to maintain the unit in constant readiness to perform assigned tasks, organise and conduct combat training in the unit according to training standards, use regulatory documents and organise safe conditions of military service in the unit, organise and conduct company economy.

As a result of studying the discipline, students (trainees) should:

*to know:*

the content of measures to maintain the unit in combat readiness;

the procedure for organising daily activities in a platoon (company);

the procedure for organising personnel records in the unit;

the procedure for keeping records of material assets in the unit;

the procedure for accepting and resigning the position of unit commander;

basic forms and methods of combat training in the company;

Methods of conducting classes according to training standards;

requirements for the safety of military activities during combat training, the use of weapons and military equipment, the performance of economic activities, and compliance with fire and environmental safety;

*be able to:*

develop and maintain personal documents on combat readiness;

organise and conduct combat training in the unit, and keep records of it;

conduct combat training classes in accordance with training standards;

Develop planning and reporting documents for combat training;

organise and support the day-to-day activities of the unit;

organise and manage company housekeeping;

work with restricted documents in a variety of environments;

Organise and keep records of material assets in the unit;

document the acceptance and surrender of the position of unit commander;

organise security measures in the unit during combat training, use of weapons and military equipment, household work, fire and environmental safety.

### **Organisational and methodological guidelines**

The subject matter of the discipline is the daily activities of the unit and the practice of using military units.

Group and practical exercises should be conducted to acquire practical skills in managing military units to ensure the fulfilment of daily tasks, maintaining units in constant readiness to perform assigned tasks, using examples from the experience of the Russian-Ukrainian war. In practical classes, it is advisable to practice using tasks that require logical thinking and contribute to the development of cadets' (students') creative abilities.

Classes are held in specialised classrooms, training complexes, training grounds and campuses, training fields, which must be equipped with the necessary stands, posters, simulators, computer equipment, etc. The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in the classroom under the guidance of a scientific and pedagogical employee.

During all forms of training, individual, group and frontal methods of knowledge control and active learning methods are used. The current control is carried out in the form of an oral survey or written express control during the training sessions.

### **Information and methodological support**

1. Law of Ukraine "On Military Duty and Military Service" of 25.03.1992 No. 2232-XII (as amended).
2. Law of Ukraine "On State Secrets" of 21.01.94 No. 3855-XII (as amended).
3. Law of Ukraine "On the Armed Forces of Ukraine" of 06.12.1991 No. 1934-XII (as amended).
4. Law of Ukraine "On mobilisation training and mobilisation" of . 21.10.1993 No. 3543-XII (as amended).
5. Law of Ukraine "On Defence of Ukraine" of 06.12.1991 No. 1932-XII (as amended).
6. Statutes of the Armed Forces of Ukraine.

### **Titles of topics and distribution of study time by type of class**

№ s/n	Types of training classes, control events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic№ 1. Organisation of security of military service in everyday life</b>					
1	Lecture	2	2		<b>Class 1. Theoretical foundations of military security</b> 1. Legal basis for the security of military activities. 2. Safety in the operation and maintenance of weapons and military equipment. 3. Investigation of an accident in a military unit.
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>The topic is№ 2. Health and safety and the basics of Sessional health and safety</b>					
2	Lecture	2	2		<b>Class№ 1. Classification of hazards by source</b> 1. Natural, social, and man-made hazards and their impact factors. 2. Organisation of labour protection in a military unit. 3. Labour protection instructions and their purpose.
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Theme 3. Fundamentals of military administrative activity</b>					
3	Lecture	2	2		<b>Class 1. Legislation of Ukraine on protection of state secrets</b> 1. Information with restricted access. State secrets. 2. General provisions on the organisation of classified work in a military unit (subdivision). 3. General Provisions on the Organisation of Official Records Management...

<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 4. Service activities of the unit commander</b>					
4	Lecture	2	2	-	<b>Class 1. Activities of the unit commander in the field of human resources management</b> 1. Organisation of personnel records in the unit... 2. Procedure for appointment and dismissal of personnel from the positions of non-commissioned officers of the unit. 3. The procedure for certification of subordinate personnel by the unit commander.
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 5. Organisation of service of troops in the unit</b>					
5	Lecture	2	2		<b>Class 1. Fundamentals of organising the service of troops in a unit</b> 1. Content, essence and tasks of military service. 2. Organisation of the daily watch service in the unit. 3. Organisation of the guard service in the unit
6	Group session	2	2		<b>Class 2. Organisation of accounting and storage of weapons and ammunition</b> 1. Requirements of the guiding documents on the accounting and storage of weapons and ammunition in the unit (guard). 2. Responsibilities of officials to ensure the accounting and storage of weapons and ammunition in the unit.
<b>Total for the topic</b>		<b>4</b>	<b>4</b>		
<b>Topic 6. Basics of organising combat training in a unit</b>					
7	Lecture	2	2		<b>Class 1. Fundamentals of combat training organisation</b> 1. Purpose, tasks and content of training of the Armed Forces of Ukraine. 2. General provisions for the organisation of combat training. 3. Requirements of regulatory documents on combat training planning.
8	Group session	2	2		<b>Class 2. Organisation of individual and collective training</b> 1. Organisation of individual training. The system of individual training. 2. Forms of collective training. 3. Platoon combat training logbook...

9	Practical session	2	2		<b>Class 3. Planning combat training in a unit</b> 1. Develop and draw up a training schedule for the unit (separate platoon). 2. Drawing up a lesson plan (outline, operational map).
10	Seminar	2	2		<b>Class 4. High-quality organisation of combat training and service of troops in a unit is the basis for maintaining combat readiness</b> 1. Discuss the activities of the unit commander in organising the service of troops in the unit. 2. Discuss the activities of the unit commander in organising combat training in the unit.
<b>Total for the topic</b>		<b>8</b>	<b>8</b>		
<b>Topic№ 7. Fundamentals of combat and mobilisation readiness</b>					
11	Group session	2	2		<b>Class 1. Military mobilisation and combat readiness of units</b> 1. Fundamentals of military mobilisation. 2. Combat readiness of units. 3. Manning units with mobilisation resources.
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 8. Organisation and management of military economy</b>					
12	Lecture	2	2		<b>Class 1. Organisation and management of company economy</b> 1. Fundamentals of company management. 2. The work of the commander of a unit for military economy.
13	Practical session	2	2		<b>Class 2. Receiving and handing over cases and position by the unit commander</b> 1. General regulations on the acceptance and delivery of cases and the position of platoon leader. 2. Preparation of documents for acceptance of cases and the position of platoon leader.
14	Practical session	2	2		<b>Class 3. Accounting for material assets in a subdivision</b> 1. Preparation of accounting documents for the receipt and delivery of material assets of the unit. 2. Prepare documents for writing off material assets.
<b>Total for the topic</b>		<b>6</b>	<b>6</b>		
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>30</b>	<b>30</b>		

#### **4.6. EP 1.6 "Radiation, chemical, biological protection of units (including ecology)"**

##### **General objective of the educational programme component**

Training of a serviceman capable of implementing radiation, chemical, biological (RBC) protection measures aimed at protecting units from the use of weapons of mass destruction and the consequences of the destruction of high-risk objects in various conditions, and developing their psychological stability when acting in difficult conditions of modern combat.

As a result of studying the discipline, students (trainees) should:

*to know:*

basic information about weapons of mass destruction;

methods and ways of determining CBRN contamination;

maximum permissible levels of ionising radiation, radiation safety standards;

classification, pathogenic properties of biological agents, and methods of their combat use;

the procedure for using protective equipment for its intended purpose, peculiarities of preparation and use of individual and collective protective equipment during the performance of tasks, depending on the combat situation;

service equipment of the CBRN defence forces;

*be able to:*

organise measures to protect against weapons of mass destruction;

use CBRN contamination detection equipment and personal protective equipment against weapons of mass destruction;

determine the maximum permissible levels of ionising radiation in accordance with radiation safety standards;

operate in conditions of biological contamination;

use the service equipment of the CBRN troops.

##### **Organisational and methodological guidelines**

The study of the discipline is aimed at mastering the basic provisions of CBRN protection and acquiring skills in the use of CBRN protection means.

To achieve the overall learning objective, the following forms of learning are provided:

frontal form of training, when all cadets (students) perform the same task at the same time under the supervision of a teacher;

group form of training, when cadets (students) are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when cadets (students) complete tasks sequentially, one by one.

Depending on the level of knowledge or skill required, the following methods are used:

explanatory and illustrative method, in which the teacher presents the ready-made information by various means, and the cadets (students) perceive, understand and fix it in their memory;

a reproductive method, the main feature of which is the proof and repetition of a method of activity, to be used in practical classes.

To develop the creative abilities of cadets (students), problem-based learning methods are used during practical classes.

The following control methods are used in teaching the discipline:

entrance control;

current control;

final control.

The number of Assessment activities, forms of their implementation, frequency are communicated to cadets (students) at the beginning of the discipline.

Classes are held in specialised classrooms, training complexes, training grounds and campuses, training fields, which must be equipped with the necessary stands, posters, simulators, computer equipment, etc. The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in the classroom under the guidance of a scientific and pedagogical employee.

### **Information and methodological support**

1. Doctrine on Chemical, Biological, Radiological and Nuclear Protection of Troops (Forces): Order of the General Staff of the Armed Forces of Ukraine of 19.10.2020 No. 346.

2. Military standard 01.107.004-2022 (01) "Environmental safety management system for troops (forces) during military operations". Enacted by the order of the Head of the Department of Standardisation, Codification and Cataloguing

### Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Nuclear, chemical, biological and incendiary weapons. Weapons based on new physical principles.</b>					
1	Lecture	2	2		<p><b>Class 1. General characteristics of weapons of mass destruction and high-risk facilities.</b></p> <p>1: The role and place of discipline in the training of military personnel, the procedure for passing discipline and reporting.</p> <p>2.. General characteristics of nuclear weapons. Damaging factors of a nuclear explosion and protection against them.</p> <p>3. General characteristics of chemical weapons. Protection of units from the effects of chemical weapons</p> <p>4. General characteristics of biological weapons. Protection of units from the effects of biological weapons.</p>
2	Group session	2	2		<p><b>Class 2. Incendiary weapons.</b></p> <p>1. General characteristics of incendiary weapons and current views on their use.</p> <p>2. The damaging factors of incendiary weapons.</p> <p>3. Classification of incendiary substances and mixtures.</p> <p>4. Protection of personnel, weapons, military equipment and fortifications from the effects of incendiary weapons.</p>
<b>Total for the topic</b>		<b>4</b>	<b>4</b>		

<b>Topic 2. Fundamentals of radiation, chemical and biological protection of units</b>					
3	Lecture	3	2	1	<p><b>Class 1. Purpose, tasks and measures of radiation, chemical and biological protection of units.</b></p> <ol style="list-style-type: none"> <li>1. Content of tasks and measures of radiation, chemical, biological protection of units, forces and means for their implementation.</li> <li>2. The work of commanders and staffs in organising radiation, chemical and biological protection.</li> <li>3. Organisation and conduct of radiation, chemical and biological intelligence in the unit.</li> <li>4. Conventional symbols used for graphical representation of the CBR situation and actions of CBR protection units.</li> </ol> <p><i>Independent work:</i> Purpose, tasks and measures of radiation, chemical, biological protection of units.</p> <ol style="list-style-type: none"> <li>1. Procedure for organising radiation, chemical and biological protection of units.</li> <li>2. Procedure for radiation, chemical and biological protection of units.</li> <li>3. Conventional symbols used for graphical representation of the CBR situation and actions of CBR protection units.</li> </ol>
4	Practical session	2	2		<p><b>Session 2: Use of portable technical intelligence equipment.</b></p> <ol style="list-style-type: none"> <li>1. Work with chemical intelligence and control devices.</li> <li>2. Work with radiation detection and monitoring devices.</li> </ol> <p><i>Independent work:</i> Use of portable technical intelligence equipment.</p> <ol style="list-style-type: none"> <li>1. Sequence of actions in preparation for work and checking the operability of radiation detection devices.</li> <li>2. Sequence of actions in preparation for work and checking the performance of chemical reconnaissance devices.</li> </ol>
5	Practical session	2	2		<p><b>Class 3. Practical use of personal protective equipment. Basics of special treatment.</b></p> <ol style="list-style-type: none"> <li>1. Radiation, chemical, biological contamination warning signals.</li> <li>2. Procedure for the implementation and evaluation of standard No. 1.</li> <li>3. Procedure for fulfilling and evaluating the standard No. 4a; 4b.</li> <li>4. Procedure for the implementation and evaluation of the standard No. 6; 7; 8.</li> <li>5. Individual special treatment agents and the procedure for their use</li> <li>6. Purpose and structure of special processing kits and their preparation for use in various processing methods.</li> </ol>

6	Practical session	2	2		<b>Class 4. Theoretical basis of aerosols application. Application of technical means of setting up aerosol curtains.</b> 1. General principles of aerosol camouflage. 2. Technical means of general-purpose aerosol camouflage and their characteristics. 3. The procedure for using hand-held smoke grenades. 4. The procedure for using smoke bombs.
<b>Total for the topic</b>		<b>9</b>	<b>8</b>	<b>1</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total off-campus component</b>		<b>15</b>	<b>14</b>	<b>1</b>	

## 4.7. EP 1.7 "Military topography"

### **General objective of the educational programme component**

The purpose of teaching the discipline is to teach military personnel to use a topographic map as the main measuring and graphic document about the terrain, to draw up terrain diagrams, to navigate the terrain, to assess its tactical properties, to move by azimuths and by topographic map.

As a result of studying the discipline, students (trainees) should:

*to know:*

tactical properties of the terrain;

layout and nomenclature of topographic maps;

symbols for topographic maps;

methodology for determining the characteristics of the terrain;

methods for determining geographical, rectangular and polar coordinates of terrain objects;

methods for determining coordinates on topographic maps in the World Geodetic System WGS-84, Mercator Cartographic Projection (UTM), and the MGRS targeting system;

rules for determining directional angles and magnetic azimuths;

the procedure for measuring distances and areas on a topographic map;

the procedure for working with photographic documents;

the procedure for navigating unfamiliar terrain with and without a map;

the procedure for using navigation devices;

*be able to:*

assess the tactical properties of the terrain;

determine the nomenclature of adjacent sheets of topographic maps;

Read topographic maps;

Determine the mutual visibility between objects and the steepness of slopes;

build vertical terrain profiles;

determine the geographical, rectangular, and polar coordinates of terrain objects;

determine the coordinates on topographic maps in the WGS-84 global geodetic system, the Mercator Cartographic Projection (UTM), and the MGRS targeting system;  
measure distances, areas and angles on a topographic map;  
perform measurements on a map, aerial image and on the ground;  
navigate unfamiliar terrain with and without a map;  
plan and move along a specific route.

### **Organisational and methodological guidelines**

The methodological basis for teaching the discipline is a mandatory and systematic reference to the experience of the Russian-Ukrainian war, taking into account the content of general military, tactical and military-specialist disciplines that cadets (students) will study; giving preference to Practical Session.

It is mandatory to systematically consolidate the knowledge and skills acquired in the course of studying the discipline during practical (field) classes by performing exercises to determine your location, map orientation, orientation on the ground using a map, measuring angles and distances on the map and terrain, etc.

The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in class under the guidance of a scientific and pedagogical employee.

To achieve the overall learning goal, the following forms of learning are provided:

frontal form of training, when all cadets (students) perform the same task at the same time under the supervision of a teacher;

group form of training, when cadets (students) are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when cadets (students) complete tasks sequentially, one by one.

Depending on the level of knowledge or skill required, the following methods are used:

explanatory and illustrative method, in which the teacher presents the ready-made information by various means, and the cadets (students) perceive, understand and fix it in their memory;

a reproductive method, the main feature of which is the proof and repetition of a method of activity, to be used in practical classes.

To develop the creative abilities of cadets (students), problem-based learning methods are used during practical classes. Current control is carried out in the form of an oral survey or written express control during training sessions.

### **Information and methodological support**

1. Shmal S. Military topography. Kyiv: Editorial and Publishing Centre of the Armed Forces of Ukraine, 2018.
2. Instruction on the use of topographic, special, digital (electronic) maps in the Armed Forces of Ukraine. approved by the Order of the General Staff of the Armed Forces of Ukraine 31.12.2021 No. 422.
3. Methodological guide on the use of NATO topographic maps in the Armed Forces of Ukraine. Kyiv, 2017.
4. An album of samples of topographic, special maps and photographic documents about the area produced by the topographic service of the Armed Forces of Ukraine. Kyiv: Editorial and Publishing Centre of the Armed Forces of Ukraine, 2019.
5. Instructions for the use of the World Geodetic System WGS-84. Order of the Ministry of Defence of Ukraine 18.09.2023 No. 563. 39 c.
6. Combat Statute of the Land Forces "Geospatial Support of the Land Forces of the Armed Forces of Ukraine" BP 3-30(11).01, Kyiv, 2020.

### Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1 Topographic maps.</b>					
1	Group session	4	2	2	<p><b>Class 2 Topographic maps of the Armed Forces of Ukraine.</b></p> <ol style="list-style-type: none"> <li>1. Purpose, scale and characteristics of topographic maps.</li> <li>2. The essence of topographic mapping and nomenclature.</li> <li>3. Summary tables of topographic maps.</li> <li>4. Prepare a topographic map for work.</li> </ol> <p><i>Independent work:</i> Topographic maps of the Armed Forces of Ukraine.</p> <ol style="list-style-type: none"> <li>1. Practice identifying adjacent sheets of topographic maps at different scales.</li> </ol>
2	Group session	4	2	2	<p><b>Class 4. Study the terrain on a map.</b></p> <ol style="list-style-type: none"> <li>1. The essence of the relief image by horizontal lines.</li> <li>2. The height of the relief section.</li> <li>3. Determine the elevation and elevation of points on the map.</li> <li>4. 4. Determine the steepness of slopes from the map.</li> </ol> <p><i>Independent work:</i> Study the terrain on a map.</p> <ol style="list-style-type: none"> <li>1. Perform individual tasks to build a vertical profile of the terrain.</li> </ol>

3	Group session	3	2	1	<p><b>Class 7. The system of geographical coordinates.</b></p> <p>1. The concept of a geographic coordinate system.  2. Determine geographic coordinates from a topographic map.  3. Plotting targets on a map using known geographic coordinates.</p> <p><i>Independent work:</i> Geographic coordinate system.  1. Determine the location of the object (target) in the geographic coordinate system.</p>
4	Group session	3	2	1	<p><b>Class 8. The system of flat rectangular coordinates.</b></p> <p>1. The essence of the plane rectangular coordinate system.  2. Determining rectangular coordinates from a topographic map. Additional coordinate grid at the junction of neighbouring zones.  3. Place targets on the map using rectangular coordinates.</p> <p><i>Independent work:</i> Flat rectangular coordinate system.  1. Determine the location of an object (target) in a flat rectangular coordinate system.  2. Determine the location of the object (target) in the polar and bipolar coordinate systems.</p>
5	Group session	4	2	2	<p><b>Class 9. Azimuths and directional angles.</b></p> <p>1. Directional angle, true and magnetic azimuths. The procedure for determining the directional angles from the map.  2. Direction correction. Switch from directional angles to azimuths and vice versa.</p> <p><i>Independent work:</i> Azimuths and directional angles.  1. Determination of directional angles and azimuths. Calculate the directional correction.  2. Training in the transition from directional angles to azimuths and vice versa.</p>
<b>Total for the topic</b>		<b>18</b>	<b>10</b>	<b>8</b>	
<b>Topic 2 Terrain as an element of the combat environment.</b>					
6	Group session	2	2		<p><b>Class 2. Working with aerial images.</b></p> <p>1. Prepare the aerial image for work.  2. Transfer targets from the aerial image to the map.  3. Determine the rectangular coordinates of targets from an aerial image.</p>

7	Practical session	5	4	1	<p><b>Class 3: Measuring and orienteering without and with a map.</b></p> <p>1. Orientation on the ground without a map.</p> <p>2. Measure angles and determine distances on the ground.</p> <p>3. Orientation on the map. Determining the point of standing.</p> <p><i>Independent work:</i> Drawing a map of the area.</p> <p>1. Conventional symbols used on terrain diagrams.</p> <p>2. Drawing up a map of the area.</p>
<b>Total for the topic</b>		<b>7</b>	<b>6</b>	<b>1</b>	
<b>Topographic maps of NATO countries.</b>					
8	Practical session	3	2	1	<p><b>Class 1: Locating objects on NATO maps.</b></p> <p>1. Determine the geographical coordinates.</p> <p>2. Determine the rectangular coordinates.</p> <p>3. Features of using the Military Grid Reference System.</p> <p><i>Independent work:</i> Determining the position of objects on NATO maps.</p> <p>1. Determining the position of objects using the Military Grid Reference System with varying accuracy.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>30</b>	<b>20</b>	<b>10</b>	

#### 4.8. PLO 1.8 "Engineering training"

##### **General objective of the educational programme component**

Training of a serviceman who is able to provide comprehensive engineering support to the unit, to practically perform the tasks of engineering support for the mobility of his troops (forces), engineering measures to restrict the mobility of enemy forces and means, engineering measures to increase the survivability and safety of the use of troops (forces) and objects, general engineering support for troops (forces).

As a result of studying the discipline, students (trainees) should:

*to know:*

demonstrate knowledge of the nature of engineering support tasks;  
processes of comprehensive support of the unit (by types, branches of the Armed Forces of Ukraine, other military formations established in accordance with laws of Ukraine) during combat use and daily activities;

*be able to:*

to organise the execution of tasks on engineering support for the mobility of their troops (forces);  
to carry out engineering measures to restrict the mobility of enemy forces and assets;  
carry out engineering measures to improve the survivability and safety of troops (forces) and facilities;  
organise the performance of general engineering support tasks for troops (forces).

##### **Organisational and methodological guidelines**

The subject of the discipline is a set of measures for the engineering training of units in order to timely and covertly move them out, deploy them, conduct manoeuvres, create the necessary conditions for the successful completion of assigned tasks, increase the level of protection of units and objects from enemy weapons, inflict losses on the enemy and complicate his actions.

Lecture classes are held to study the theoretical provisions of the use of units in the main types of combat (tactical actions), and they include separate questions on the specifics of unit actions and decision-making procedures by the unit commander according to NATO standards (TLP).

The group training is aimed at teaching the personnel the techniques and methods of performing engineering support

tasks in various combat conditions, taking into account the experience of the war with the Russian Federation.

Practical classes are conducted to consolidate and deepen theoretical knowledge, as well as to instil in students the skills of using theoretical provisions in solving specific practical problems. During practical classes, it is advisable to practice performing tasks that require logical thinking and promote the development of students' creative abilities.

### **Information and methodological support**

1. Temporary Guidelines on Engineering Support of the Armed Forces of Ukraine - Kyiv: General Staff of the Armed Forces of Ukraine, 2019.

2. SBP 3-(01,02,04).58(59) Combat Statute of the Mechanised and Tank Troops of the Land Forces of the Armed Forces of Ukraine, Part III (platoon, section, tank): approved by the Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 238 25.05.2016 (as amended in 2017-2023).

3. Combat Regulations of the Artillery of the Armed Forces of Ukraine, Part II (division, battery, platoon, gun) / Kyiv: Varta, 2017.

4. On Approval of the Guidelines on Subversive (Explosive) Activities in the Armed Forces of Ukraine. Order of the General Staff of the Armed Forces of Ukraine of 04 January 2017 No. 1 - Kyiv, 2017.

5. On approval of the guidelines for the use of engineered ammunition by units of the Armed Forces of Ukraine. Order of the General Staff of the Armed Forces of Ukraine of 04 January 2017 No. 2 - Kyiv, 2017.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals of engineering support of combat operations.</b>					
1	Lecture	3	2	1	<p><b>Class 1: Engineer troops and tasks of engineering support of combat.</b></p> <p>1. The main tasks of engineering support (engineering support for the mobility of own troops (forces); engineering measures to limit the mobility of enemy forces and assets; engineering measures to increase the survivability and safety of troops (forces) and objects; general engineering support for troops (forces). 2. Organisational and staffing structure and capabilities of an engineer platoon of a mechanised (tank) battalion, an engineering support group of a mechanised (tank) brigade.</p> <p><i>Independent work</i></p> <p>1. Sequence and scope of engineering equipment in the area of concentration of the mechanised, tank (artillery) platoon.</p> <p>2. Sequence and scope of checkpoint engineering equipment.</p>
2	Group session	3	2	1	<p><b>Class 2: Engineering reconnaissance of the enemy and terrain.</b></p> <p>1. Purpose, tasks, bodies of engineering intelligence and methods of its conduct.</p> <p>2. The work of the unit commander in organising engineering reconnaissance of the enemy and the terrain.</p> <p>3. The procedure for conducting a search (reconnaissance) of the area based on the experience of the war with the Russian Federation.</p> <p><i>Independent work</i></p>

					1. Characteristic unmasking features of minefields. 2. Composition, equipment and tasks of the emergency demining group.
<b>Total for the topic</b>		<b>6</b>	<b>4</b>	<b>2</b>	
<b>Topic 2. Fortification of troop positions, construction of protective structures and engineering camouflage measures.</b>					
3	Group session	3	2	1	<p><b>Class 1: Fortification equipment of troop positions.</b></p> <p>1. General requirements for the fortification of troop positions. 2. Arrangement of fortifications for firing at the positions of mechanised and tank units. 3. Arrangement of fortifications to protect personnel.</p> <p><i>Independent work</i></p> <p>1. Procedure for equipping single trenches for firing from a rifle (machine gun), trenches for tanks, armoured personnel carriers, armoured personnel carriers, cannon. Procedure for equipping anti-fragmentation shelters, blocked gaps, and dugouts. 2. Purpose, specifications of the main types of earthmoving equipment (PZM-2, EOY-4421, MDK-3)</p>
4	Group sessios	3	2	1	<p><b>Class 2: Conducting engineering security measures for the use of troops and facilities to camouflage troops and facilities, simulate their actions.</b></p> <p>1. General provisions on camouflage. 2. Methods of camouflage of personnel and equipment. 3. Disguising fortifications and objects based on the experience of the war with the Russian Federation.</p> <p><i>Independent work</i></p> <p>1. Purpose, technical characteristics and composition of sets of service engineering camouflage means. 2. Purpose, technical characteristics, composition of personnel sets of anti-radar camouflage and concealment equipment.</p>
<b>Total for the topic</b>		<b>6</b>	<b>4</b>	<b>2</b>	
<b>Topic 3. Blasting operations.</b>					

5	Group session	3	2	1	<p><b>Class 1: Destruction, basics of the fire method of detonating explosive charges. Basics of the electric method of detonating explosive charges.</b></p> <ol style="list-style-type: none"> <li>1. Classification of explosives.</li> <li>2. Purpose, technical characteristics and structure of fire detonation devices.</li> <li>3. Purpose, technical characteristics and design of electrical detonation devices.</li> <li>4. Purpose, technical characteristics of sapper wires and test equipment.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Purpose and composition of the kit for preparation and conduct of blasting operations in the field.</li> <li>2. The Criminal Code of Ukraine on violation of the established rules for handling explosives and means of detonation.</li> <li>3. General requirements for safety measures during blasting operations.</li> </ol>
6	Group session	3	2	1	<p><b>Class 2: Anti-tank mines.</b></p> <ol style="list-style-type: none"> <li>1. Purpose and classification of anti-tank mines.</li> <li>2. General design, technical characteristics, kit composition, procedure for installation and neutralisation (destruction) of TM-62 series anti-tank anti-track mines.</li> <li>3. Foreign-made anti-tank mines used by the Armed Forces of Ukraine.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Purpose, technical characteristics, design, principle of operation, procedure for neutralisation (destruction) of MVCH-62 fuzes.</li> <li>2. Purpose, technical characteristics, design, principle of operation, procedure for neutralisation (destruction) of MVP-62 and MVP-62M fuzes.</li> </ol>
7	Group session	4	2	2	<p><b>Class 3: Anti-personnel mines. Means and main types of mines that can be laid remotely.</b></p> <ol style="list-style-type: none"> <li>1. Purpose and classification of anti-personnel mines used in the war with the Russian Federation.</li> <li>2. General structure, technical characteristics, principle of operation, procedure for laying and neutralising (destroying) anti-personnel mines.</li> <li>3. Foreign-made anti-personnel mines used by the Armed Forces of Ukraine</li> <li>4. Purpose, technical characteristics, design, principle of operation and procedure for defusing mines laid by remote mining systems.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Methods of fixing minefields.</li> </ol>

					2. Fill in the minefield fixation card.
8	Practical session	6	4	2	<p><b>Class 4. Making passages in minefields by explosive means.</b></p> <p>1. Overcoming minefield obstacles by non-standard demining teams (demining).</p> <p>2. The procedure for manufacturing ignition tubes.</p> <p>3. The procedure for detonating explosive charges by fire.</p> <p><i>Independent work</i></p> <p>1. Procedure for calculating the weight of explosives and their placement for making a passage in anti-tank non-explosive barriers.</p> <p>2. Procedure for calculating the weight of explosives and their placement for making a passage in anti-personnel non-explosive barriers.</p>
<b>Total for the topic</b>		<b>16</b>	<b>10</b>	<b>6</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>30</b>	<b>20</b>	<b>10</b>	

## 4.9. EP 1.9 "Organisation of military communications"

### **General objective of the educational programme component**

Training of a serviceman who knows the basics of unit management, the procedure for preparing and conducting modern combined arms combat using standard means of communication during the performance of service and combat missions in peacetime and wartime and is able to apply the acquired knowledge in practice.

As a result of studying the discipline, students should:

*to know:*

the procedure for using the latest means of communication;

tactical and technical characteristics of the main types of communications equipment;

the procedure for creating a unit management system in a modern combined arms battle, the principles of using communication means in the main types of combat, taking into account the use of electronic warfare by the enemy;

organising the management of a subordinate unit in preparation for and during a general combat using regular means of communication;

*be able to:*

organise communication with subordinate and interacting units in the main types of combat;

to carry out radio communications in radio networks and radio directions, to conduct official negotiations by means of communication in conditions of interference, to meet the requirements of radio masking, covert command and control of troops and ensure the security of communications;

Practical skills in working with standard and modern means of communication of the unit;

correctly apply the documents of covert (hidden) management of the unit.

### **Organisational and methodological guidelines**

The subject of the discipline is the theory and practice of organising military communications to control a unit during modern combined arms combat.

Group and practical classes should be conducted to acquire practical skills in organising military communications using modern means of communication, using examples from the experience of the Russian-Ukrainian war.

Classes are held in specialised classrooms, training complexes, training grounds and campuses, training fields, which must be equipped with the necessary stands, posters, simulators, computer equipment, etc. The educational material provided for studying during independent work is submitted for final control together with the educational material that is processed in the classroom under the guidance of a scientific and pedagogical employee.

During all forms of training, individual, group and frontal methods of knowledge control and active learning methods are used. The current control is carried out in the form of an oral survey or written express control during the training sessions.

### **Information and methodological support**

1. Doctrine. Communication and information systems. Kyiv: General Staff of the Armed Forces of Ukraine, 2020.
2. Doctrine of the Communications and Cyber Security Forces of the Armed Forces of Ukraine. Kyiv: General Staff of the Armed Forces of Ukraine, 2021.
3. Guideline "Tactical Communication" VKDP 6-110(03).01. Kyiv: General Staff of the Armed Forces of Ukraine, 2020.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals and methods of organising military communications in tactical command and control units.</b>					
1	Group session	3	2	1	<p><b>Class 1: Fundamentals of radio communication. Conducting radio communication (radio exchange) in units. Field means of wire communication of tactical command and control units.</b></p> <p>1. General concepts of radio communication. Frequency ranges and the concept of electromagnetic wave propagation.</p> <p>2. Rules of radio communication, phonetic alphabet and numbers. The procedure for reporting on the situation, call signs.</p> <p>3. Purpose, composition and procedure for coding messages, orders using documents of covert management of units.</p> <p>4. Purpose, general structure and main specifications of TA-57 telephone set and P-193M field switchboard.</p> <p><i>Independent work:</i> Fundamentals of radio communication. Conducting radio communication (radio exchange) in units.</p> <p>1. Advantages and disadvantages of radio communication.</p> <p>2. Methods of radio wave propagation. Features of propagation of radio waves of the VHF and UHF ranges. Ways of organising radio communication.</p>

Total for the topic		3	2	1	
<b>Topic 2 Tactical and technical characteristics, capabilities and modes of operation of basic communication equipment in units of the tactical command and control of the Armed Forces of Ukraine. Covert command and control of units.</b>					
2	Group session	2	2		<p><b>Class 1: Tactical and technical characteristics, capabilities and modes of operation of the main radio communication equipment of tactical command and control units.</b></p> <p>1. Tactical and technical characteristics of Motorola radio stations DP 4800, DP 4400, DM 4600 (Lybid K-1A). Capabilities and modes of operation of DP 4800, DP 4400, DM 4600 (Lybid K-1A).</p> <p>2. The main tactical and technical characteristics and operating modes of HARRIS RF-7850M-HH radio stations.</p> <p>3. Options for using radio stations in tactical command and control units.</p>
3	Group session	3	2	1	<p><b>Class 2: Tactical and technical characteristics and modes of operation of HARRIS ultra-shortwave radio stations. Preparation for the operation of satellite communication stations of tactical command and control units.</b></p> <p>1. Main tactical and technical characteristics and modes of operation of HARRIS RF-7850M-HH radio stations.</p> <p>2. The composition of the radio station. Controls of the radio station. Preparing the radio for operation.</p> <p>3. Main technical characteristics, procedure for setting up and masking the StarLink satellite communication station.</p> <p><i>Independent work:</i> Tactical and technical characteristics and modes of operation of HARRIS ultra-shortwave radio stations. Preparation for the operation of satellite communication stations of tactical command and control units.</p> <p>1. Application options for HARRIS RF-7850M-HH radios.</p> <p>2. The procedure for preparing the configuration and masking of the StarLink satellite communication station.</p>
4	Practical session	3	2	1	<p><b>Class 3. Application of documents for covert command and control of units in planning and performing tasks in combat zones.</b></p> <p>1. Procedure for coding messages and orders using documents of covert management of subdivisions.</p> <p>2. Procedure for transmitting signals and commands by radio (situation report (SITREP), contact report (CONTACT REPORT), request for evacuation of the wounded (CASEVAC)).</p> <p><i>Independent work:</i> Application of documents for covert command and control of units in the planning and execution of tasks in combat zones.</p> <p>1. Procedure for coding messages and orders using documents of covert management of subdivisions.</p>

5	Practical session	2	2		<p><b>Class 4. Work on communication means using documents of covert control of tactical command and control units.</b></p> <p>1. Work on radio communications, transfer of information using documents of covert command of units.</p> <p>2. Preparation for the operation and deployment of the StarLink satellite terminal, transmission of information to the Armed Forces command and control system via open communication channels.</p> <p>3. Preparation and operation of the TA-57 field telephone set and the P-193M field telephone switchboard.</p>
<b>Total for the topic</b>		<b>10</b>	<b>8</b>	<b>2</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>15</b>	<b>12</b>	<b>3</b>	

#### **4.10. EP 1.10 "Combat system of warrior survival (including tactical medicine)"**

##### **General objective of the discipline**

Training of a serviceman who is able to provide first aid in case of injuries and traumas during the performance of official (combat) functions and tasks; apply techniques and methods of ensuring life support in autonomous conditions, counteracting the impact of natural factors on a person, moving on foot over long distances.

As a result of studying the discipline, students (trainees) should:

*to know:*

the most common causes and signs of injuries and traumas requiring first aid, the procedure and methods of providing first aid to the injured and affected;

the procedure for organising movement on the territory controlled by the enemy;

basic life support measures in autonomous conditions;

*be able to:*

provide first aid in case of injuries, bleeding, poisoning and other combat injuries using service equipment;

organise and equip locations for a small unit in the face of a possible encounter with the enemy;

take measures to counteract the impact of environmental conditions on the human body.

##### **Organisational and methodological guidelines**

Classes in the discipline should be conducted to acquire theoretical knowledge and practical skills of survival in various conditions, for further use of this experience in their service and combat activities.

Theoretical concepts are practiced in the classroom with the use of teaching aids (posters, diagrams, models, training films), and practical issues are practiced on the ground using individual medical equipment and first aid equipment.

Classes are held in specialised classrooms, training complexes, laboratories, training grounds and campuses, training fields, etc.

### **Information and methodological support**

1. Combat system of warrior survival. Study guide / Shkurpit O.M., Felko M.V., Bachynskyi V.V. Odesa: VA m. Odesa, 2018.
2. TCCC Combat Life Saver (TCCC CLS). Observations, Insights and Lessons. Handbook. 2020.
3. Standard of Individual Training STI-000G.21L "Tactical Medicine", approved by the Order of the Commander of the Medical Forces of the Armed Forces of Ukraine No. 121 28.12.2023.
4. Medical support. Requirements for training of all military personnel in combat casualty care (STANAG 2122/AMedP-8.15, "REQUIREMENT FOR TRAINING IN CASUALTY CARE FOR ALL MILITARY PERSONNEL", IDT).

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1. Fundamentals of providing assistance to victims of hostilities. Assisting victims in the area of direct threat</b>					
1	Lecture	1	1	-	<p><b>Class 1: First aid measures in combat conditions. Means of individual medical equipment of a serviceman.</b></p> <ol style="list-style-type: none"> <li>1. Principles and algorithm of providing first aid to victims of hostilities.</li> <li>2. The role and responsibility of non-medical personnel in providing assistance to victims of hostilities.</li> <li>3. Means of individual medical equipment of a serviceman.</li> </ol>
2	Group session	2	1	1	<p><b>Class 2. Measures of first aid in combat conditions. Means of individual medical equipment of a serviceman.</b></p> <ol style="list-style-type: none"> <li>1. Principles and algorithm of providing first aid to victims of hostilities.</li> <li>2. Means of individual medical equipment of a serviceman.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Definition and objectives of tactical medicine.</li> <li>2. Fundamentals of normal human anatomy and physiology.</li> <li>3. Composition and purpose of individual and group medical first aid kits.</li> <li>4. Algorithm for providing assistance to the victim MARCH PAWS.</li> </ol>

3	Practical session	3	2	1	<p><b>Class 3: Providing assistance to victims in the area of direct threat.</b></p> <ol style="list-style-type: none"> <li>1. Basics of communication with the victim and ways to approach him/her.</li> <li>2. Stop massive bleeding from the extremities with a mechanical haemostatic device (collar type).</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Basic action plan and safety rules for working in conditions of direct threat (under enemy fire).</li> <li>2. Algorithm of actions when applying a mechanical haemostatic agent (collar type).</li> <li>3. Signs of massive bleeding.</li> </ol>
4	Practical session	3	2	1	<p><b>Class 3: Moving the victim to a shelter.</b></p> <ol style="list-style-type: none"> <li>1. Moving the victim out of the immediate threat zone independently without the use of additional equipment.</li> <li>2. Moving (dragging, carrying) the victim out of the immediate threat zone in a group without the use of additional equipment.</li> <li>3. Extracting the victim from the vehicle (combat vehicle, car, etc.).</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Ways to move the victim out of the immediate threat zone without using regular and improvised means.</li> <li>2. Methods of moving (dragging, carrying) the victim out of the area of direct threat in a group without the use of additional equipment.</li> <li>3. Rules for extracting a victim from a vehicle (combat vehicle, car, etc.).</li> </ol>
<b>Total for the topic</b>		<b>9</b>	<b>6</b>	<b>3</b>	
<b>Topic 2. Assisting victims in the area of indirect threat</b>					
5	Practical session	3	2	1	<p><b>Class 1: Basics of providing assistance in an indirect threat zone.</b></p> <ol style="list-style-type: none"> <li>1. Fundamentals of providing assistance in an area of indirect threat (equipment, safety rules, communication, triage).</li> <li>2. Fundamentals of victim assessment in the area of indirect threat (principles, assessment of consciousness, pulse and respiratory rate, communication with the victim and his/her isolation).</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Algorithm for providing assistance to a victim of MARCH PAWS.</li> </ol>

6	Practical session	2	2	<p><b>Class 2: Assisting victims with massive bleeding - M (Massive bleeding).</b></p> <ol style="list-style-type: none"> <li>1. Examine the casualty for massive bleeding.</li> <li>2. Application of indirect pressure on the vessels.</li> <li>3. Application of direct pressure to the vessels.</li> <li>4. Use of turnstiles for limbs with a gate type and ratchet mechanism.</li> <li>5. Perform tamponade using haemostatic and conventional means. Reassess the effectiveness of tamponade.</li> <li>6. Application of compression dressings.</li> </ol>
7	Practical session	3	2	<p><b>Class 3: Assistance in case of obstruction of the upper airway - A (Airways).</b></p> <ol style="list-style-type: none"> <li>1. Manual restoration of airway patency.</li> <li>2. Determining the presence of breathing (the "Hear-See-Feel" method).</li> <li>3. Place the victim in a stable lateral position.</li> <li>4. Restoration of airway patency in case of suspected cervical spine injury.</li> <li>5. Manual removal of foreign bodies from the oral cavity.</li> <li>6. Insertion of a nasopharyngeal airway.</li> <li>7. Artificial lung ventilation using a ventilation bag with a mask alone or together.</li> <li>8. State of consciousness on the AVPU scale.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Structure of the human upper respiratory tract.</li> <li>2. Signs of upper airway obstruction and emergency respiratory care "Tactical First Aid" (TFA).</li> <li>3. Selection of a nasopharyngeal airway (NPA).</li> <li>4. State of consciousness on the AVPU scale.</li> </ol>

8	Practical session	3	2	1	<p><b>Class 4. Providing assistance using the MARCH algorithm. Assessment of breathing and life-threatening chest injuries - R (Respiration).</b></p> <ol style="list-style-type: none"> <li>1. Types and symptoms of chest injuries.</li> <li>2. Assessment of respiratory rate and depth.</li> <li>3. The procedure and sequence of chest examination.</li> <li>4. The procedure for using occlusal stickers.</li> <li>5. Conducting the "venting" depressurisation technique (Burping technique).</li> <li>6. The procedure for needle decompression.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Structure of the human chest.</li> <li>2. Identification of signs of tension pneumothorax.</li> </ol>
9	Practical session	4	2	2	<p><b>Class 5. Providing assistance using the MARCH algorithm. Circulation - C (Circulation).</b></p> <ol style="list-style-type: none"> <li>1. Immobilisation of the pelvic bones.</li> <li>2. Assessment of radial pulse and level of consciousness.</li> <li>3. Conversion and relocation of the turnstile.</li> <li>4. Control (reassessment) of external and internal bleeding and search for other injuries (wounds).</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Reassess the control of massive bleeding.</li> <li>2. Signs of pelvic fracture.</li> <li>3. Symptoms of hypovolemic (haemorrhagic) shock. The lethal triad.</li> </ol>
10	Practical session	2	2		<p><b>Class 6. Providing assistance using the MARCH algorithm. Hypothermia - H (Hypothermia).</b></p> <ol style="list-style-type: none"> <li>1. Use of different types of thermal blankets and heating elements. Prevention of hypothermia.</li> <li>2. Examine and assess a victim with suspected head and eye injuries.</li> <li>3. Provide pre-hospital care in case of suspected head and eye injuries.</li> </ol>

11	Group session	3	2	1	<p><b>Class 7. Thermal injuries. Fractures. Use of painkillers and antibiotics. Wounds.</b></p> <p>. The procedure for providing pre-hospital care to victims with thermal injuries.</p> <p>2. Immobilisation of limbs, neck, spine.</p> <p>3. Applying a bandage when fixing foreign bodies in the victim's body.</p> <p>4. Apply a bandage to the amputated limb, pack the amputated limb.</p> <p>5. Wound assessment and dressing.</p> <p><i>Independent work.</i></p> <p>1. Degrees and types of thermal injuries and methods of calculating their area.</p> <p>2. Procedure for examination and assessment of a victim with suspected musculoskeletal injuries, types of musculoskeletal injuries.</p> <p>3. The concept and contents of the individual pill kit (CWMP), the main types of painkillers and antibiotics.</p>
<b>Total for the topic</b>		<b>20</b>	<b>14</b>	<b>6</b>	
<b>Topic 3. Sorting, moving and preparing for evacuation. Evacuation transport</b>					
12	Group session	2	2		<p><b>Class 1: Triage in case of mass casualties. Sorting the wounded by evacuation priority.</b></p> <p>1. Maintain sorting documentation.</p> <p>2. Sorting algorithms and categories.</p>
13	Group session	3	2	1	<p><b>Class 2: Moving and preparing for evacuation.</b></p> <p>1. Loading victims into/on various types of transport.</p> <p>2. Securely fix the wounded for transport.</p> <p>3. Transmit a verbal report.</p> <p>4. Filling in the victim card.</p> <p><i>Independent work.</i></p> <p>1. Types of equipment for moving victims.</p> <p>2. Types of land and air transport for evacuation of victims.</p>
14	Group session	4	4	-	<p><b>Class 3: Simulation exercises.</b></p> <p>1. Rehearse a scenario for assisting a victim with different types of injuries.</p> <p>2. Summing up the results.</p>
<b>Total for the topic</b>		<b>9</b>	<b>8</b>	<b>1</b>	
<b>Topic 4. Fundamentals of the combat system of survival of warriors.</b>					
15	Lecture	4	2	2	<b>Class 1: The basics of survival.</b>

					<ol style="list-style-type: none"> <li>1. The concepts of survival and autonomous existence. Factors affecting human survival.</li> <li>2. Purpose and composition of the emergency kit and emergency bag.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Equipment and equipment tiering options.</li> <li>2. Methods and means of signalling.</li> </ol>
16	Group session	4	2	2	<p><b>Class 2: Catering and water supply.</b></p> <ol style="list-style-type: none"> <li>1. Methods of cooking and storing food in the field. Use of natural resources for food.</li> <li>2. Finding water sources, water purification and disinfection.</li> <li>3. Methods of obtaining and preserving fire. Fire for cooking.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Recommendations for compliance with the drinking regime.</li> <li>2. Types of bonfires and their purpose.</li> </ol>
17	Practical session	4	2	2	<p><b>Class 3: Basics of survival. The basics of rational nutrition and water supply.</b></p> <ol style="list-style-type: none"> <li>1. Finding water sources, water purification and disinfection.</li> <li>2. Fire production and fire preservation.</li> <li>3. Preparation and storage of food in the field. Use of natural resources for food.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Equipment and options for echeloning the serviceman's equipment.</li> <li>2. Modern mandatory items of personal equipment for servicemen.</li> <li>3. Principles of preparing and completing a survival kit. Typical composition of an individual survival kit.</li> </ol>
18	Group session	3	2	1	<p><b>Class 4. The basics of moving and studying tracks on the ground.</b></p> <ol style="list-style-type: none"> <li>1. Organisation of movement in the territory controlled by the enemy.</li> <li>2. Procedure for movement and actions when encountering the local population and the enemy.</li> <li>3. Study of footprints of people and equipment, determination of the age of the trail and the troops' camping.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Organisation of movement on the ground. Marching order during movement.</li> <li>2. Rules of the tracker.</li> </ol>

19	Group session	2	1	1	<p><b>Class 5. Orientation when operating in enemy-controlled territory.</b></p> <p>1. Orientation in space and time.  2. Determine the direction and follow it while driving.  3. Methods of determining distances on the ground.  4. Ways to determine the linear dimensions of local objects (landmarks).</p> <p><i>Independent work.</i></p> <p>1. Practically solve problems of determining the local time by the celestial bodies.  2. Practically solve problems of determining distances on the ground and linear dimensions of objects.</p>
20	Group session	2	1	1	<p><b>Class 6. Organisation of recreation in the territory controlled by the enemy.</b></p> <p>1. Requirements for places of rest, arrangement of shelter in different conditions. Organisation of rest.  2. Actions in the conditions of enemy use of sniffer dogs.</p> <p><i>Independent work:</i> Arranging a shelter, ensuring the safety of the resting place.</p> <p>1. Ensuring the safety of the recreation area.  2. Practice the types of shelter using the equipment and tools at hand.</p>
<b>Total for the topic</b>		<b>19</b>	<b>10</b>	<b>9</b>	
<b>Assessment activities</b>		<b>3</b>	<b>2</b>	<b>1</b>	<b>Credit</b>
<b>Total for the educational component</b>		<b>60</b>	<b>40</b>	<b>20</b>	

#### 4.11. GP 1.11 "Statutes of the Armed Forces of Ukraine and their practical application"

##### **General objective of the educational programme component**

Training of a serviceman who has theoretical knowledge and practical skills and is able to establish a firm order in subordinate units, give uniform instructions on training and education of servicemen, clearly define the range of duties of soldiers and the procedure for their performance.

As a result of studying the discipline, students should:

*to know:*

requirements of the statutes of the Armed Forces of Ukraine;

general duties, rights and responsibilities of military personnel;

organisation of internal order in the unit;

the procedure for organising internal service in the unit (platoon, company);

the procedure for organising the training of the personnel of the daily patrol assigned from the unit;

the rights of the unit commander to apply incentives and impose disciplinary sanctions on subordinate servicemen;

Methods of conducting Drill Exercises and the Statutes of the Armed Forces of Ukraine;

*be able to:*

personally comply with the requirements of the Statutes of the Armed Forces of Ukraine;

apply the requirements of the Statutes of the Armed Forces of Ukraine in the daily activities of the unit;

organise the accommodation of personnel in compliance with the requirements of the statutes and internal regulations;

organise the performance of service by the unit's personnel in daily patrols;

ensure the safe storage of weapons and ammunition;

exercise disciplinary power, correctly apply disciplinary measures (rewards, penalties) to subordinate servicemen;

conduct Drill Exercise and study of the Statutes of the Armed Forces of Ukraine with the personnel of the unit;

correctly perform elements of Drill Exercise in everyday activities.

Logistical support: classrooms, a training ground, a guardhouse, multimedia equipment.

### **Information and methodological support**

1. Statute of the Internal Service of the Armed Forces of Ukraine.
2. Disciplinary Statute of the Armed Forces of Ukraine.
3. The Charter of the Garrison and Guard Services of the Armed Forces of Ukraine.
4. The Articles of Arms of the Armed Forces of Ukraine.
5. Standard of individual training in the subject of study "Statutes of the Armed Forces of Ukraine" (introductory course),  
STI 000G.17L.
6. Standard of individual training in the subject of drill (course of study of actions as part of a squad (platoon), STI 000G.29L.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training classes, control events	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Duties, rights and responsibilities of military personnel.</b>					
1	Lecture	1	1		<b>Class 1: Responsibilities of the command team officials.</b> 1. Duties of the platoon leader. 2. Distribution of authority at the platoon level between the officer and the NCO.
<b>Total for the topic</b>		<b>1</b>	<b>1</b>		
<b>Topic 2. Military discipline</b>					
2	Lecture	1	1		<b>Class 1: Incentives and disciplinary sanctions applied and imposed on military personnel.</b> 1. Incentives applicable to military personnel. 2. Disciplinary sanctions imposed on military personnel.
<b>Total for the topic</b>		<b>1</b>	<b>1</b>		
<b>Topic 3. Daily routine of a military unit.</b>					
3	Lecture	3	2	1	<b>Class 1: Daily routine, preparation and reconnaissance.</b> 1. Daily duty, the procedure for assigning duty and reporting on them. 2. Preparation and reconnaissance of the daily patrol. 3. Equipment of premises (places) for duty by the daily squad. <i>Independent work.</i> 1. Study of the duties of the persons on duty (day watch and company watch).
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	

<b>Topic 4. Organisation of the guard service.</b>				
4	Lecture	2	2	<p><b>Class 3: Rights and duties of guard officials.</b></p> <p>1. Duties of guard officials.</p> <p>2. Procedure for the use of physical force and weapons by guard personnel.</p>
<b>Total for the topic</b>		<b>2</b>	<b>2</b>	
<b>Topic 5. Drill Exercises</b>				
5	Practical session	1	1	<p><b>Class 1: Formations and their management.</b></p> <p>1. The line and its elements. Formation management and the order of giving commands.</p> <p>2. Duties of servicemen before lining up and in formation.</p> <p>3. Signals for formation control and machine control.</p>
6	Practical session	1	1	<p><b>Class 2. Drill techniques and movement without weapons.</b></p> <p>1. 1. The combat position. Execution of commands: "Halt", "Stand at attention", "Attention", "At ease", "Get in line", "Headgear - take off (put on)".</p> <p>2. Turns in place and while driving.</p> <p>3. Movement in formation and marching steps, running.</p>
7	Practical session	1	1	<p><b>Class 3: Getting out of line, getting back into line. Approaching and departing from a superior.</b></p> <p>1. Withdrawal from deployed formation and return to formation.</p> <p>2. Withdrawal from the marching formation and return to the formation.</p> <p>3. Approaching and departing from the boss.</p>
8	Practical session	2	2	<p><b>Class 4. Drill techniques and movement with weapons.</b></p> <p>1. The order of execution of commands: "STAND STILL", "ATTENDANCE", "AT EASE", "HATS OFF (ON)" with weapons in the "ON THE STRAP", "BEHIND THE BACK" and "ON THE BREAST" positions, "BELT LOOSEN (TIGHTEN)" as assigned.</p> <p>2. Position of the weapon when moving "ON THE ROAD", "FOR PATROL", "DURING PATROL IN A POPULATED AREA".</p> <p>3. Procedure and execution of drills "Weapon on re - ME", "Rifle on - chest", "Weapon - behind the back".</p>

9	Practical session	1	1		<b>Class 5. Drill techniques and movement with weapons.</b> 1. Drills with weapons: "Put down - WEAPON", "To - WEAPON", "Behind - WEAPON" by distributions. 2. Performing drills with weapons: "Put down - WEAPON", "To - WEAPON", "Behind - WEAPON" in general. 3. Performing a military salute with weapons on the spot and in motion.
<b>Total for the topic</b>		<b>6</b>	<b>6</b>		
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>15</b>	<b>14</b>	<b>1</b>	

## 4.12. EP 1.12 "Small arms and firearms training"

### **General objective of the educational programme component**

Training of a serviceman who is able to use small arms, grenade launchers, be able to fire them, and control platoon fire in various types of combat in order to perform assigned combat tasks.

As a result of studying the discipline, students (trainees) should:

*to know:*

purpose, tactical and technical characteristics, combat properties, general structure, principle of operation, procedure for incomplete disassembly and assembly after incomplete disassembly, as well as the procedure for post-firing maintenance of the unit's standard weapons;

the procedure for observing the battlefield and selecting a target, initial settings for each type of weapon, the procedure for conducting and adjusting fire, and methods of targeting;

the basics of fire control and the procedure for setting fire missions for the unit;

the procedure for using night sights and surveillance devices;

safety measures when handling small arms and grenades;

*be able to:*

use regular weapons;

conduct combat checks and bring the weapon to normal combat at different distances;

use lighted reactive, signal cartridges and signal pistols.

### **Organisational and methodological guidelines**

The training is conducted at firing ranges and sites. Prior to the Practical Session, it is mandatory to study the safety measures and clarify (refine) them before the start of the training. Personnel arrive for Practical Session in full field equipment with weapons.

During Practical Session, the purpose, combat properties and structure of weapons, ammunition, aiming and observation devices, as well as the basics and rules of shooting are studied.

During firearms training, skills are developed and improved in handling weapons (firing techniques), reconnaissance of

targets by observation, determination of their range and targeting.

The firing exercises shall be conducted in accordance with the Course of Fire from Small Arms and Combat Vehicles. During firing exercises, use elements of psychological influence on the trainees, such as firing blank ammunition behind the firing personnel and using explosive packages at safe distances.

### **Information and methodological support**

1. Small arms and combat vehicle firing course. Order of the General Staff of the Armed Forces of Ukraine of 17 April 2018, no. 160.

2. Collection of Standards for Combat Training of the Land Forces of the Armed Forces of Ukraine - Kyiv: Military Publishing House, 2021.

3. Manual of fire 5.45 mm Kalashnikov rifles (AK-74, AKS-74, AK-74N, AKS-74N) and 5.45 mm Kalashnikov machine guns (RPK-74, RPK-74N, RPK-74N). VKDP 7-00(01).01.

4. Manual on shooting 7.62 mm Kalashnikov machine guns KK, KKM, KKS, KKMS, KKB, KKMB, KKT". VKDP 7-00(01).01.

5. RPG-7V (RPG-7D) Hand-held Anti-Tank Grenade Launcher Manual. VKDP 7-01(03-05, 22, 23)03.01.

6. Manual. On the use of foreign-made weapons in the Armed Forces of Ukraine (instructions for use). Part 1 (small arms). VP 7-(01).03.01.

7. Manual. On the use of foreign-made weapons in the Armed Forces of Ukraine (instructions for use). Part 2 (anti-tank weapons). VP 7-(01).03.01.

8. Handbook for the commander of a mechanised unit. VP 7-00(11).01.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Arming units.</b>					
1	Lecture	4	2	2	<p><b>Class 1. General concepts of small arms.</b></p> <ol style="list-style-type: none"> <li>1. The main tasks and procedure for studying the discipline.</li> <li>2. The purpose of modern small arms and melee weapons.</li> <li>3. Design properties of small arms and melee weapons.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Classification of small arms.</li> <li>2. Learn the basics and rules of shooting.</li> </ol>
2	Group session	3	2	1	<p><b>Class 2: 5.45 mm RPK-74 machine gun.</b></p> <ol style="list-style-type: none"> <li>1. Purpose, combat characteristics, general structure of the RPK-74 machine gun, completeness, operation of parts and mechanisms of the standard weapon. Ammunition, spare parts and accessories.</li> <li>2. The procedure for incomplete disassembly of weapons and assembly after incomplete disassembly. Maintenance of weapons.</li> <li>3. Checking the combat and bringing the RPK-74 machine gun back to normal.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Preparing the RPK-74 machine gun for firing.</li> </ol>
3	Group session	3	2	1	<p><b>Class 3: 7.62 mm PKM (PC) machine gun.</b></p> <ol style="list-style-type: none"> <li>1. Purpose, combat characteristics, general structure of the PKM (PC) machine gun. Completeness, ammunition. spare parts and accessories.</li> <li>2. The procedure for incomplete disassembly of weapons and assembly after incomplete disassembly. Maintenance of weapons.</li> <li>3. Check the combat and bring the PKM (PKT) machine guns back to normal.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Possible delays in firing and how to eliminate them.</li> </ol>

4	Group session	3	2	1	<p><b>Class 4. Service pistols.</b></p> <p>1. Purpose, combat properties, general structure, operation of parts and mechanisms of service pistols. Ammunition, spare parts and accessories.</p> <p>2. The procedure for incomplete disassembly of weapons and assembly after incomplete disassembly. Maintenance of weapons.</p> <p><i>Independent work.</i></p> <p>1. Possible delays in firing and how to eliminate them.</p>
5	Group session	4	3	1	<p><b>Class 5. 40 mm RPG-7V (RPG-7D) anti-tank grenade launcher. RPG-18 rocket-propelled grenades.</b></p> <p>1. Purpose, combat capabilities, general structure and procedure for use of the RPG-7.</p> <p>2. The procedure for incomplete disassembly and assembly of the RPG-7.</p> <p>3. Purpose, combat properties, general structure of RPG-7 rounds and RPG-18, RPG-22, 26 grenades.</p> <p><i>Independent work.</i></p> <p>1. Preparing the RPG-7B (RPG-7D) grenade launcher for firing.</p>
6	Group session	2	2		<p><b>Class 6. Small arms and grenade launchers of the leading countries of the world.</b></p> <p>1. NATO rifles, machine guns and grenade launchers.</p> <p>2. Purpose, general structure, principle of operation of the AR-15 platform.</p> <p>3. Procedure for incomplete disassembly of the weapon and assembly after incomplete disassembly.</p>
7	Group session	3	2	1	<p><b>Class 7. Check of combat and bringing small arms to normal combat.</b></p> <p>1. Check the combat and bring the weapon to normal combat at different distances.</p> <p>2. Combat checks and bringing the weapon to normal operation of NATO small arms.</p> <p><i>Independent work.</i></p> <p>1. Improving the skills of bringing weapons to normal combat.</p>
<b>Total for the topic</b>		<b>22</b>	<b>15</b>	<b>7</b>	
<b>Topic 2. The basics of shooting.</b>					

8	Group session	3	2	1	<p><b>Class 1: Internal and external ballistics.</b></p> <p>1. Information on internal and external ballistics.</p> <p>2. Explosives. Main groups of explosives.</p> <p>3. Shot periods.</p> <p>4. Measurement of angles, formula for the thousandth.</p> <p><i>Independent work.</i></p> <p>1. Learn the basic concepts of internal and external ballistics.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 3. Rules of shooting.</b>					
9	Group session	4	2	2	<p><b>Class 1: Rules of small arms fire.</b></p> <p>1. Rules for choosing a sight and aiming point when shooting small arms at targets.</p> <p>2. Influence of firing conditions on the flight of a bullet. Determination of corrections for deviations from normal (tabulated) firing conditions.</p> <p>3. Composition, purpose of KJ-83, KJ-2017 and the procedure for their application.</p> <p><i>Independent work.</i></p> <p>1. Solving firing tasks.</p>
10	Group session	4	2	2	<p><b>Class 2: Rules of fire from the 40-mm RPG-7V (RPG-7D) anti-tank grenade launcher.</b></p> <p>1. Rules for assigning initial settings.</p> <p>2. Rules of fire from the 40-mm RPG-7V (RPG-7D) anti-tank grenade launcher against moving and emerging targets.</p> <p><i>Independent work.</i></p> <p>1. Field rules of fire from the 40-mm RPG-7V (RPG-7D) anti-tank grenade launcher.</p>
11	Group session	2	2		<p><b>Class 3: Fire mission. Its essence and sequence of solution.</b></p> <p>1. General information about shooting from different types of weapons.</p> <p>2. Elements of solving a fire mission.</p> <p>3. 3. Direct shooting training.</p>
<b>Total for the topic</b>		<b>10</b>	<b>6</b>	<b>4</b>	
<b>Topic 4. Methodological training of unit commanders.</b>					

12	Group session	4	2	2	<p><b>Class 1: Methods of conducting firearms training.</b></p> <p>1. General requirements, methods and forms of firearms training.</p> <p>2. Organisation and procedure of fire training.</p> <p>3. Assessment of firearms training.</p> <p><i>Independent work.</i></p> <p>1. Procedure for working on teaching and training cards.</p>
13	Practical session	2	2		<p><b>Class 2: Organising and conducting control firearms training sessions.</b></p> <p>1. The procedure for organising control classes.</p> <p>2. The procedure for conducting control classes.</p>
<b>Total for the topic</b>		<b>6</b>	<b>4</b>	<b>2</b>	
<b>Topic 5. Fire training. Performing firing exercises with small arms and melee weapons.</b>					
14	Group session	2	2		<p><b>Class 1: Basic provisions of the Small Arms and Combat Vehicle Shooting Course, shooting conditions and safety measures.</b></p> <p>1. Basic provisions of the Small Arms and Combat Vehicle Shooting Course.</p> <p>2. Conditions for firing exercises and safety measures.</p>
15	Practical session	2	2		<p><b>Class 2: Maintenance, preparation of machine guns (5.45 mm RPK-74 machine gun, 7.62 mm PKM (PC) machine gun) and 40 mm RPG-7 grenade launcher for firing. Fulfilment of fire training standards. Solving fire tasks.</b></p> <p>1. Maintenance, preparation of machine guns (5.45 mm RPK-74 machine gun and 7.62 mm PKM (PC) machine gun) for firing.</p> <p>2. Maintenance and preparation of a 40 mm RPG-7 grenade launcher for firing.</p> <p>3. Fulfilment of fire training standards No. 13, 14, 16 for machine guns and 40 mm RPG-7 grenade launcher.</p>
16	Practical session	7	6	1	<p><b>Class 3: Exercises on firing from the 5.45 mm AK-74 rifle, 40 mm RPG-7 grenade launcher (PUS-7), throwing a hand-held training grenade.</b></p> <p>1. Execution of the training exercise COP 2.01.1.1 "Shooting from a standstill at emerging targets" with the 5.45 mm AK-74 rifle.</p> <p>2. Execution of the initial firing exercise COP 1.06.1.1 "Shooting from a standstill at a stationary target with PUS-7" from a 40 mm RPG-7 grenade launcher.</p>

					<p>3. Performing the initial training grenade throwing exercise COP 4.16.2.6 "Throwing an offensive hand grenade on the move in foot order".</p> <p>4. Practicing firearms training standards No. 1 and 2 for the 5.45 mm AK-74 rifle and 40 mm RPG-7 grenade launcher.</p> <p><i>Independent work.</i></p> <p>1. Weapon maintenance after firing.</p>
17	Night practical session	5	4	1	<p><b>Class 4. Practical shooting with 5.45 mm AK-74 at night.</b></p> <p>1. Execution of the training exercise COP 2.01.1.1 "Shooting from a standstill at emerging targets" with the 5.45 mm AK-74 rifle at night.</p> <p>2. Practicing firearms training standards No. 1, 2 and the procedure for aiming at night using a device for night shooting with a 5.45 mm AK-74 rifle.</p> <p>3. Rules for the use of illuminated reactive, signal cartridges and signal pistols. Procedure for the use of night sights and surveillance devices.</p> <p><i>Independent work.</i></p> <p>1. Weapon maintenance after firing.</p>
18	Practical session (methodological practice)	7	6	1	<p><b>Class 5. Exercise firing drills with 5.45 mm AK-74 rifle, RPK-74 machine gun, 40 mm RPG-7 grenade launcher.</b></p> <p>1. Execution of the training exercise COP 2.01(03-04).1.1 "Shooting from a standstill at emerging targets" with the 5.45 mm AK-74 rifle and RPK-74 machine gun at the positions in the combined rifle squads.</p> <p>2. Execution of the COP 2.06(07).1.1 "Shooting from a standstill at an emerging target" and the COP 1.06.1.1 "Shooting from a standstill at a stationary target with PUS-7" from a 40 mm RPG-7 grenade launcher.</p> <p>3. Practicing fire training standards No. 1, 2 for the 40 mm RPG-7 grenade launcher and fire training standards No. 26, 27, 28, 29 for the 5.45 mm AK-74 rifle.</p> <p>4. Training in performing the duties of a rifle squad commander in organising and controlling squad fire</p> <p><i>Independent work.</i></p>

					1. Weapon maintenance after firing.
19	Practical session	7	6	1	<p><b>Class 6. Exercise control firing from a 5.45 mm AK-74 rifle (RPK-74 machine gun) and a 40 mm RPG-7 grenade launcher.</b></p> <p>1. Execution of the control firing exercise COP 3.01.1.1 "Shooting from a standstill at emerging targets with a change of firing position" with the 5.45 mm AK-74 rifle by positions in combined rifle squads.</p> <p>2. Execution of the control firing exercise COP 3.06.2.1 "Shooting from a fixed position with a change of firing position at targets that appear and move , with RPG " by positions in combined rifle squads.</p> <p>3. Training in performing the duties of a rifle squad commander in organising and managing squad fire.</p> <p><i>Independent work.</i></p> <p>1. Weapon maintenance after firing.</p>
20	Practical session	7	6	1	<p><b>Class 7. Execution of combat firing exercises of combat groups (twos, threes) with an assault rifle, a handgun, a machine gun and an under-barrel grenade launcher.</b></p> <p>1. Execution of the live-fire exercise COP 6.18.2.2 "Firing as part of a machine gun crew".</p>

					<p>2. Execution of the live-fire exercise COP 6.18.2.3 "Firing as part of a combat team in various ways" with the 5.45 mm AK-74 rifle.</p> <p>3. Practicing firearms training standards No. 30, 31, 32, 33 with the 5.45 mm AK-74 rifle.</p> <p>4. Solving firing tasks.</p> <p><i>Independent work.</i></p> <p>1. Weapon maintenance after firing.</p>
21	Practical session	6	4	2	<p><b>Class 8. Performing training firing from a 9 mm PM and Fort-14 pistol.</b></p> <p>1. Execution of the training exercise COP 2.12.1.1 "Shooting at a stationary target" with a 9 mm PM pistol and Fort-14.</p> <p>2. Training in the implementation of firearms training standards No. 13, 14, 16 for the 9 mm PM pistol. Safety measures during practical shooting.</p> <p>3. Fulfilment of firearms training standards No. 1, 2, 24, 25 for the 9 mm PM pistol and Fort-14</p> <p><i>Independent work.</i></p> <p>1. Weapon maintenance after firing.</p>
<b>Total for the topic</b>		<b>43</b>	<b>37</b>	<b>6</b>	
<b>Assessment activities</b>		<b>6</b>	<b>4</b>	<b>2</b>	<b>Credit</b>
<b>Total for the educational component</b>		<b>90</b>	<b>68</b>	<b>22</b>	

#### **4.13. GM 1.13 "Fundamentals of military law and international humanitarian law"**

##### **General objective of the educational programme component**

To prepare a serviceman who is able to apply knowledge of international humanitarian law; understand the procedure for military service, bringing servicemen to criminal, administrative and material responsibility; know the procedure for conducting an internal investigation in the Armed Forces of Ukraine; social and legal protection of servicemen and their families within the framework of the current legislation of Ukraine.

As a result of studying the discipline, students should:

*to know:*

the procedure for military service;

social and legal protection of military personnel and their families;

the procedure for bringing servicemen to administrative responsibility;

the procedure for bringing military personnel to financial responsibility;

the procedure for bringing military personnel to criminal liability;

the procedure for conducting an internal investigation in the Armed Forces of Ukraine;

requirements of international humanitarian law;

*be able to:*

conduct an internal investigation with the preparation of all necessary documents;

draw up a report on a military administrative offence;

to bring violators of military discipline in the unit to disciplinary, administrative and financial responsibility;

manage the unit in compliance with international humanitarian law.

##### **Organisational and methodological guidelines**

The subject of the discipline is the theory of studying the legislation of Ukraine and the practical application of its requirements during military service.

Lectures and practical classes should be conducted with the aim of consolidating and deepening theoretical knowledge, as well as instilling in students the skills of using theoretical provisions in solving specific practical problems. In practical

classes, it is advisable to practice using tasks that require logical thinking and promote the development of students' creative abilities.

### **Information and methodological support**

1. The Constitution of Ukraine.
2. On Military Duty and Military Service. Law of Ukraine, 1992 (as amended).
3. Regulation on the Military Service of Citizens of Ukraine in the Armed Forces of Ukraine. Decree of the President of Ukraine, 2022.
4. On Social and Legal Protection of Servicemen and Members of Their Families. Law of Ukraine, 1991 (as amended).
5. Statute of the Internal Service of the Armed Forces of Ukraine.
6. Disciplinary Statute of the Armed Forces of Ukraine.
7. The Code of Ukraine on Administrative Offences.
8. On the Status of War Veterans and Guarantees of Their Social Protection. Law of Ukraine, 1993 (as amended).
9. Instruction on the Procedure for the Implementation of International Humanitarian Law in the Armed Forces of Ukraine. Approved by the Order of the Ministry of Defence of Ukraine of 23.03.2017 No. 164.
10. The Procedure for Conducting an Internal Investigation in the Armed Forces of Ukraine, approved by Order of the Ministry of Defence of Ukraine No. 608 21.11.2017 (registered with the Ministry of Justice of Ukraine on 13.12.2017 under No. 1503/31371).
11. Methodological Recommendations on Conducting an Internal Investigation (Inspection) in the Armed Forces of Ukraine (third edition), approved by the Commander-in-Chief of the Armed Forces of Ukraine on 10.2020.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Military duty and military service.</b>					
1	Lecture	2	2	1	<p><b>Class 1: The procedure for military service. Social and legal protection of servicemen and their families</b></p> <p>1. Types of military service. Peculiarities of military service by different categories of servicemen in peacetime and wartime.</p> <p>2. The concept of the right to social protection. Benefits for servicemen and members of their families</p> <p><i>Independent work.</i></p> <p>1. Peculiarities of military service by persons called up for mobilisation.</p> <p>2. Age limit for military service under martial law.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 2. Legal responsibility of military personnel.</b>					
2	Group session	2	2		<p><b>Class 1: Administrative and material responsibility of military personnel.</b></p> <p>1. Peculiarities of administrative responsibility of military personnel.</p> <p>2. Legal characteristics of military administrative offences.</p> <p>3. The concept and grounds of liability.</p> <p>4. Types of material liability. The procedure for compensation for material damage.</p>

3	Lecture	3	2	1	<p><b>Class 2: Criminal liability of military personnel.</b></p> <p>1. Peculiarities of criminal liability of military personnel.</p> <p>2. The concept, composition and types of military criminal offences.</p> <p>3. Criminal law characteristics of certain military criminal offences.</p> <p><i>Independent work.</i></p> <p>1. Physical or mental coercion.</p> <p>2. Execution of a lawful order or instruction.</p> <p>3. An act involving risk.</p>
<b>Total for the topic</b>		<b>5</b>	<b>4</b>	<b>1</b>	
<b>Topic 3. Service inspection and service investigation in the Armed Forces of Ukraine.</b>					
4	Practical session	2	2		<p><b>Class 1: Methods of conducting an internal audit and internal investigation.</b></p> <p>1. The concept, tasks, grounds for appointment and peculiarities of an internal audit and internal investigation.</p> <p>2. Taking written explanations (determining the list and content of questions) in the course of an internal audit and internal investigation into a given fact.</p> <p>3. Procedure for conducting and documenting the results of an internal audit and internal investigation.</p>
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 4. Application of international humanitarian law.</b>					
5	Group session	3	2	1	<p><b>Class 1: Application of international humanitarian law.</b></p> <p>1. Determination of the legal status of participants in hostilities.</p> <p>2. Prohibited means and methods of warfare.</p> <p>3. Legal regime for the protection of war victims and prisoners of war.</p> <p>4. 4. International legal protection of civilian objects and cultural property.</p> <p>5. Watching educational films on Law of Armed Conflict and analysing the violations of international humanitarian law.</p> <p>6. Solving the problems of an interactive primary curriculum on law of war.</p> <p>7. Responsibility for violations of international humanitarian law</p> <p><i>Independent work.</i></p>

					1. A civilian object during an armed conflict. 2. Protection of cultural property in the event of armed conflict. 3. Special measures to protect women.
<b>Total for the topic</b>	<b>3</b>	<b>2</b>	<b>1</b>		
<b>Assessment activities</b>	<b>2</b>	<b>2</b>			<b>Credit</b>
<b>Total for the educational component</b>	<b>15</b>	<b>12</b>	<b>3</b>		

#### 4.14. EP 1.14 "Intelligence Training"

##### **General objective of the educational programme component**

Acquiring theoretical knowledge and practical skills in conducting reconnaissance, detecting and assessing the enemy in the unit (link - squad, platoon), as well as in the organisation, armament, tactics of actions, motorised infantry (tank) units of the armed forces of the Russian Federation (link - squad, platoon, company), and the main means of destruction used by the enemy in the war against Ukraine.

As a result of studying the discipline, students should:

*to know:*

military intelligence agencies of the unit, their capabilities in conducting intelligence;

types and methods of tactical reconnaissance, the procedure for conducting reconnaissance in a unit;

the organisational structure, weapons, equipment and tactics of units (squad, platoon, company) of the motorised rifle (tank) troops of the armed forces of the Russian Federation;

the main means of destruction used by the enemy in the war against Ukraine;

*be able to:*

organise and conduct intelligence in the unit;

select landmarks, determine their distances and draw a map of landmarks;

Identify and expose enemy objects, weapons and equipment;

assess the external environment and the enemy.

##### **Organisational and methodological guidelines**

The academic discipline "Intelligence Training" is closely interrelated with the academic discipline "General Tactics".

Lectures and group classes are conducted to study the organisation, tactics, tactical and technical characteristics and intelligence features of weapons and military equipment of the main units of the Russian Army (squad and company), as well as the basics of conducting reconnaissance, detecting and assessing the enemy in the unit.

Seminars and practical classes are held to consolidate and deepen the theoretical knowledge and practical skills acquired during lectures and group classes.

The final result of studying the discipline is the acquisition of theoretical knowledge of the organisation and tactics of enemy actions, as well as the basics of conducting intelligence in the unit.

### **Information and methodological support**

1. Manual for studying the organisational structure of the units of the ground forces of the armed forces of the Russian Federation. - Kyiv: DIU, 2024. - 68 p.
2. Study guide. Intelligence and Foreign Armies. Part 2. Information work. - Zhytomyr: ZhVI, 2019. 124 p.
3. Study guide. Organisation, armament and basics of tactics of the motorised rifle units of the Land Forces of the Armed Forces of the Russian Federation: ZhVI, 2020. 351 p.
4. Handbook of the JFO participant. Arms and military equipment of the RF Armed Forces - Kharkiv: KHNUPS, 2020.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals of Military Intelligence</b>					
1	Lecture	3	2	1	<p><b>Class 1. Tactical reconnaissance.</b></p> <p>1. Purpose, tasks, types, forces and means of tactical intelligence.</p> <p>2. Methods of conducting military intelligence.</p> <p>3. Military intelligence agencies.</p> <p><i>Independent work.</i></p> <p>1. Purpose, tasks, types of tactical intelligence.</p> <p>2. Military intelligence agencies and their characteristics.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 2. Organisational structure and armament of motorised infantry (tank) units of the Russian armed forces</b>					
2	Group session	3	2	1	<p><b>Class 1. Organisational and staff structure, weapons and combat equipment of motorised infantry (tank) units of the Russian Armed Forces.</b></p> <p>1. Organisational and staffing structure of a motorised infantry (tank) division (crew), weapons and military equipment, their visual identification.</p> <p>2. Organisational and staffing structure of a motorised infantry (tank) platoon, weapons and military equipment, their visual identification.</p> <p>3. Organisational and staffing structure of a motorised infantry (tank) company, weapons and military equipment, their visual identification.</p> <p><i>Independent work.</i></p> <p>1. Organisational and staffing structure of a motorised infantry (tank) platoon.</p> <p>2. Organisational and staffing structure of a motorised infantry (tank) company.</p>

<b>Total for the topic</b>	<b>3</b>	<b>2</b>	<b>1</b>		
<b>Topic 3. Fundamentals of Combat by Motorised Rifle (Tank) Units of the Russian Armed Forces</b>					
3	Group session	3	2	1	<p><b>Class 1. Motorised rifle (tank) units of the Russian Armed Forces in defence.</b></p> <p>1. Fundamentals of defensive combat of motorised infantry (tank) units of the Russian Armed Forces (purpose, conditions, types, tasks).</p> <p>2. A motorised rifle unit in defence.</p> <p>3. A motorised infantry (tank) platoon in defence.</p> <p>4. A motorised infantry (tank) company in defence.</p> <p><i>Independent work.</i></p> <p>1. A motorised infantry (tank) platoon in defence.</p> <p>2. A motorised rifle (tank) company in defence.</p>
4	Group session	3	2	1	<p><b>Class 3. Motorised rifle (tank) units of the Russian Armed Forces in the offensive.</b></p> <p>1. Fundamentals of offensive combat of motorised infantry (tank) units.</p> <p>2. A motorised rifle squad in the offensive.</p> <p>3. A motorised infantry (tank) platoon in the offensive.</p> <p>4. A motorised infantry (tank) company in the offensive.</p> <p><i>Independent work.</i></p> <p>1. A motorised infantry (tank) platoon in the offensive.</p> <p>2. A motorised infantry (tank) company in the offensive.</p>
<b>Total for the topic</b>	<b>6</b>	<b>4</b>	<b>2</b>		
<b>Assessment activities</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>Credit</b>	
<b>Total for the educational component</b>	<b>15</b>	<b>10</b>	<b>5</b>		

#### **4.15. EP 1.15 "Fundamentals of organising and conducting warfare in the electromagnetic environment and cyberspace"**

##### **General objective of the educational programme component**

Acquaintance of cadets with basic terms and definitions, basics of organisation and conduct of electronic warfare and cyber intelligence (planning, methods of employment of electronic warfare and cyber warfare units), tactical and technical characteristics of electronic warfare and cyber warfare means, procedure of deployment and intended use, as well as implementation of basic cybersecurity measures (cyber hygiene), understanding of the main aspects of cyber operations.

As a result of studying the discipline, students should:

*to know:*

Definition, tasks and components of electronic and cyber warfare;

organisational structure, equipment and combat capabilities of the electronic warfare unit within the military unit;

basic tactical standards for the use of an EWR unit;

basic organisational measures for electronic and cyber defence;

the procedure for collecting and using information on the electronic environment to ensure the use of the unit;

*be able to:*

organise and carry out electronic protection of electronic means (proper use of communication equipment, etc.) of the unit;

use the basic methods of fighting in an electromagnetic environment;

apply regulatory and legal acts and guidelines for conducting warfare in the electromagnetic environment in everyday activities;

to solve the problem of detecting signals of cellular communication facilities and wireless access points deployed using Wi-Fi and Bluetooth technologies;

apply basic methods and tools for searching for information from open sources;

take measures to mislead the enemy using social networks, messengers and information platforms;

to use means of processing and transmitting information in the information and communication systems of the Armed Forces of Ukraine in compliance with the requirements of guiding documents in the field of cybersecurity and information protection;

act in accordance with the requirements of the guidelines on the procedure for responding to cyber incidents in the information and communication systems of the Armed Forces of Ukraine.

### **Organisational and methodological guidelines**

The academic discipline "Fundamentals of organising and conducting warfare in the electromagnetic environment and cyberspace" is closely interrelated with the academic discipline "Organisation of military communications".

### **Information and methodological support**

1. Law of Ukraine on the Protection of Information in Information and Communication Systems.
2. Law of Ukraine On the Basic Principles of Ensuring Cybersecurity of Ukraine.
3. Rules for Ensuring Information Protection in Information, Electronic Communication and Information and Communication Systems, approved by Resolution of the Cabinet of Ministers of Ukraine No. 373 29.03.2006.
4. Concept for the development of the electronic warfare system in the Armed Forces of Ukraine until 2026.
5. VKP 10(3)-27(03.01. Doctrine on electronic warfare in joint operations.
6. Guidelines "Organisation and Conduct of Electronic Warfare in Combined Arms Combat". Developed by the working group of the Electronic Warfare Department of the Main Directorate of Electronic and Cyber Warfare of the General Staff of the Armed Forces of Ukraine. 2022p.
7. Electronic warfare. Joint Publication JP 3-13.1 - USA, 2012.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals of organisation and conduct of electronic warfare in the Armed Forces of Ukraine.</b>					
1	Lecture	2	2	-	<b>Class 1: Fundamentals of electronic warfare organisation in the Armed Forces of Ukraine. Combat capabilities of electronic warfare forces and means.</b> 1. Definition, tasks and components of electronic warfare. The electronic warfare management system of the PC of Ukraine. 2. Organisational and staffing structure of the units of the SSR (type of the Armed Forces of Ukraine). 3. Theoretical foundations of electronic jamming of radio communications, UAVs and radar. 4. Purpose and main tactical and technical characteristics of the equipment of the electronic warfare unit. Tasks and combat capabilities of the electronic warfare unit. 5. Options for building combat formations of an electronic warfare unit of a military unit (brigade) in defence and offence.
<b>Total for the topic</b>		<b>2</b>	<b>2</b>		
<b>Topic 2. Organisation of the use of electronic warfare units</b>					
2	Lecture	2	2	-	<b>Class 1: Organisation of the use of electronic warfare units.</b> 1. Planning of radio jamming by the EW unit (by area of activity). 2. Planning of the use of the electronic protection unit (by area of activity). 3. Planning the use of an electronic warfare support unit from a military unit (by area of activity).

3	Group session	2	2	-	<b>Class 2: Planning the use of electronic warfare units.</b> 1. The list of documents to be worked out in the course of planning radio suppression and their content. 2. Measures to ensure radio electronic protection of the command and control systems of troops and weapons (radio electronic means) of the military unit. 3. Electronic warfare support capabilities and their tasks for planning the use of military units.
<b>Total for the topic</b>		<b>4</b>	<b>4</b>		
<b>Topic 3: Fundamentals of organising and conducting cyber actions to obtain information about the enemy</b>					
4	Lecture	2	2	-	<b>Class 1: Wi-Fi and Bluetooth wireless access technologies: basics of application and features of operation.</b> 1. Basic principles of wireless access technologies and cellular networks. Parameters and characteristics of network signals. 2. Features of wireless technologies and cellular networks
5	Practical session	2	2	-	<b>Class 2: Basics of cyber intelligence in relation to Wi-Fi and Bluetooth wireless access technologies.</b> 1. Scans the radio frequency spectrum of Wi-Fi and Bluetooth wireless access technologies to detect the presence of access points and radiation sources. 2. Basic principles of conducting actions in cyberspace in relation to enemy reconnaissance assets in mobile cellular networks, Wi-Fi, Bluetooth networks.
6	Group session	2	2	-	<b>Class 3: Basic principles of using methods and tools for searching for information in open sources.</b> 1. Identification of intelligence sources. 2. Use of information retrieval methods and tools. 3. Analysis of the results.
<b>Total for the topic</b>		<b>6</b>	<b>6</b>		
<b>Assessment activities</b>		<b>3</b>	<b>2</b>	<b>1</b>	<b>Credit</b>
<b>Total for the educational component</b>		<b>15</b>	<b>14</b>	<b>1</b>	

#### **4.16. EP 1.16 "Fundamentals of the use of tactical class unmanned systems"**

##### **General objective of the educational programme component**

Acquaintance of cadets (students) with basic terms and definitions, basics of organising the use of unmanned aerial vehicles (UAVs) (planning, methods of using UAVs), classification and tactical and technical characteristics of UAVs, their structure, procedure of deployment and intended use.

As a result of studying the discipline, students (trainees) should:

*to know:*

purpose, composition, principles of operation of unmanned systems on the example of unmanned aircraft systems of tactical classes;

operating rules and restrictions on UAVs and target loads;

the basics and procedure for preparing for the use of tactical class UAVs;

main tactical and technical characteristics of the regular UAVs of the air force, the armed forces, the army, artillery and reconnaissance units of the armed forces of Ukraine and the armed forces of the Russian Federation;

*be able to:*

to prepare for the use and use of copter-type UAVs;

organise data transfer from the BpAC;

use Kropyva software to determine coordinate information;

to act individually and as part of a unit when planning to use tactical-class UAVs.

##### **Organisational and methodological guidelines**

The academic discipline "Fundamentals of the use of tactical class unmanned systems" is closely interrelated with the academic discipline "General Tactics".

##### **Information and methodological support**

1. Guidelines for the combat use of Class I UAVs in the Armed Forces of Ukraine (Order of the General Staff of the Armed Forces of Ukraine No. 379DSK 09.12.2021).

2. Fundamentals of construction of unmanned robotic systems for special purposes: a textbook / Y.G. Danik, P.P. Topolnitsky, I.V. Puleko, P.V. Pozdnyakov, A.V. Rodionov, M.V. Bugayov - Zhytomyr: ZhVI, 2016. - 306 p.

3. STANAG 4670 (Edition 1). Recommended Guidance for the Training of Designated Unmanned Aerial Vehicle Operator. NATO Standardisation Agreement. 2006.

4. STANAG 4671 (Edition 1). Unmanned Aerial Vehicle Systems Airworthiness Requirements. NATO Standardisation Agreement. 2009.

5. Concept of equipping military units and subdivisions of the Armed Forces of Ukraine with unmanned aerial systems for the period up to 2025. Order of the Ministry of Defence of Ukraine of 02.11.2016 No. 580.

6. The concept of using unmanned aerial systems in the Armed Forces of Ukraine. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 13.05.2017 No. 169.

### Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Technical training</b>					
1	Lecture	2	2		<p><b>Class 1: Current state and prospects for the development of tactical unmanned systems.</b></p> <p>1. The role and place of the discipline "Fundamentals of the use of tactical class unmanned systems" in the system of training of officers.</p> <p>2. Current state, types and classification of unmanned systems in the Armed Forces of Ukraine.</p> <p>3. 3. The main guiding documents regulating the use of unmanned systems in the Armed Forces of Ukraine.</p>
2	Lecture	2	2		<p><b>Class 2: Classification of unmanned systems.</b></p> <p>1. Classification of unmanned aerial systems.</p> <p>2. Classification of ground robotic systems (platforms).</p> <p>3. Classification of marine unmanned vehicles (systems, complexes).</p> <p>4. 4. The main models of BPS used by units of the Armed Forces of Ukraine.</p>
3	Group session	3	2	1	<p><b>Class 3: Components of UAVs and principles of UAV operation.</b></p> <p>1. Components of unmanned systems (on the example of UAVs).</p> <p>2. Principles of operation of copter and aircraft-type UAVs.</p> <p>3. External factors affecting UAV flight.</p> <p>4. General characteristics of navigation systems used in unmanned systems.</p> <p><i>Independent work.</i></p> <p>1. UAV controls, basic parameters of flight data and the procedure for its processing.</p> <p>2. Development of a flight plan.</p> <p>3. The main forms and methods of using unmanned systems.</p>

<b>Total for the topic</b>		<b>7</b>	<b>6</b>	<b>1</b>	
<b>Topic 2. Tactical and special training.</b>					
4	Group session	3	2	1	<p><b>Class 1: The procedure for planning the use of UAVs. Types of reporting and information documents and the procedure for their execution based on the results of the use of unmanned systems.</b></p> <p>1. Features of planning the use of tactical class UAVs.  2. General approaches to drawing up a flight mission, development of planning documents for the use of UAVs.  3. Types of reporting and information documents (RIDs) and the procedure for their preparation.</p> <p><i>Independent work.</i></p> <p>1. Features of the use of tactical class UAVs in combat conditions.  2. Features and procedure for decoding aerial reconnaissance materials.  3. Rehearsing options for conducting aerial reconnaissance and adjusting artillery fire using various types of UAVs</p>
5	Practical session	3	2	1	<p><b>Class 2: Practicing basic UAV control skills on a simulator for copter-type UAVs.</b></p> <p>1. Practice launching and landing a copter-type UAV.  2. Practicing basic flight procedures, including artillery fire correction using copter-type UAVs.</p> <p><i>Independent work.</i></p> <p>1. Purpose and peculiarities of the use of the Kropyva SPZ by UAV crews.  2. The main types and capabilities of tactical-class regular UAVs in the Air Force, Special Forces, Combined Arms and Artillery units, and military intelligence units.  3. Preparation for the test in the discipline.</p>
<b>Total for the topic</b>		<b>6</b>	<b>4</b>	<b>2</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>15</b>	<b>12</b>	<b>3</b>	

#### 4.17 WS 1 "Combat use of mechanised units"

##### **The general objective of the discipline:**

to provide the student with an understanding of the structure and processes that take place in the combat support system of a typical battalion-level unit; the procedure for organising interaction by type of support and management at the level of battalion headquarters and battalion support unit; laying the groundwork for mastering standard operating procedures and the basic planning and management apparatus.

As a result of studying the discipline, the student should

*to know:*

processes of command and control of a unit (by type, branches of the Armed Forces of Ukraine, other military formations established in accordance with laws of Ukraine) during preparation and conduct of combat and in everyday activities.

processes of comprehensive support of the unit (by types, branches of the Armed Forces of Ukraine, other military formations established in accordance with laws of Ukraine) during combat use and daily activities.

organising battle planning in accordance with NATO Standard Operating Procedures (MDMP);

*be able to:*

plan, organise and apply combat skills of the unit (by types, branches of the Armed Forces of Ukraine and other military formations established in accordance with laws of Ukraine);

to manage a support unit during the preparation and conduct of combat, and to carry out day-to-day activities in the support unit (by type, branch of the Armed Forces of Ukraine and other military formations established in accordance with laws of Ukraine);

apply knowledge of modern armed struggle and general military combat, martial arts, the basics of the combat system of warrior survival in various conditions of professional activity;

read and maintain working maps (diagrams), understand tasks, assess the situation, make decisions as a staff officer in various types of tactical actions.

##### **Organisational and methodological guidelines:**

The methodology of teaching a discipline is based on the basic principles of didactics (theory of reasoning and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

frontal form of training, when all students perform the same task at the same time under the supervision of a teacher;

group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;

training;

situational and cognitive.

### **Information and methodological support:**

1. The Combat Statute of the Mechanised and Tank Troops of the Land Forces of the Armed Forces of Ukraine, Part II (Battalion, Company), approved by Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 564 of 30.12.2016 as amended.
2. HQP 3-102(03).01 Doctrine on the structure of command and control posts (control points) in a joint operation. K-2021.
3. The Army Combat Statute "Structure and Functioning of Command and Control Posts (Control Points) in Operations". K-2023.
4. Combined arms formations in combat (according to NATO standards): a textbook, Kyiv: I. Cherniakhovskyi National University.
5. Training kit for military units (subdivisions) (2018).
6. Order No. 140 of the Commander-in-Chief of the Armed Forces of Ukraine of 11.09.2020 "On Approval of the Temporary Procedure for the Processing of Operational (Combat) Documents".
7. NATO STANDARD. "APP-6", "NATO JOINT MILITARY SYMBOLOGY".
8. Collection of tactical calculations with examples: a textbook / team of authors. - Kyiv: Ivan Chernyakhivskyi National University, 2018. - 96 p.
9. TKP 3-(00)152(03.01 Procedure "Work of the commander and staff of the tactical command and control unit on battle (combat operations) planning according to NATO standard operating procedures", 2021
10. GP 7(5)-00(11)03.01 Guidelines for planning and organising combat in accordance with NATO standards, 2020
11. ICMB CPCS Manual "Battle Planning and Organisation by NATO Standards" - K.: 2019;
12. Military manual VP 1.0 "Military leadership." - K.: General Staff of the Armed Forces of Ukraine, 2016. - 29 p.

13. Field Manual of the US Army. Conduct of Combat Operations. FM 3-07 2008.
14. Album of unit action plans (squad, platoon, company, battalion) - Lviv. Hetman Petro Sahaidachnyi National Military Academy, 2018.
15. BP 3(7)-08(11).01 Combat Statute of the Land Forces "Air Defence Forces of the Land Forces of the Armed Forces of Ukraine" Order of the Commander of the Land Forces of the Armed Forces of Ukraine of 30 March 2021, no. 215. The Command of the Armed Forces of Ukraine. 03.2021p. 136 p., unclassified.
16. SBP 3-00(08).56(57) Combat Statute of the Land Forces of Ukraine "Air Defence Forces of the Land Forces of the Armed Forces of Ukraine" Part II (division, battery (group))" Order of the Commander of the Land Forces of the Armed Forces of Ukraine of 27 December 2016, no. 596. Command of the Armed Forces of Ukraine 12.2016. 227c unclassified.
17. SBP 3-00(08).58(59) Combat Statute of the Land Forces of Ukraine "Air Defence Troops of the Land Forces of the Armed Forces of Ukraine" Part III (platoon, squad, service)" Order of the Commander of the Land Forces of the Armed Forces of Ukraine of 26 May 2016, no. 248. Command of the Armed Forces of Ukraine 05.2016. 194 p., unclassified.
18. Handbook of foreign armies (training and combat staff of the "Yellow"), study guide, K.: NUOU, 2020.
19. Album of schemes: the use of units of the Armed Forces of the Russian Federation in the main types of combat, Kyiv: NUOU, 2018.
  - Auxiliary
  1. Actual problems of training and use of the Armed Forces of Ukraine during the anti-terrorist operation in eastern Ukraine. - Kyiv, 2016, inv. 2537.- 136 p.
  2. TKP 7-000 (162) 01.01 "Collection No. 1 of Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022." - Kyiv: GUD and PGSh AFU, 2022.
  3. TKP 7-000 (162) 01.02 "Collection No. 2 of Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022." - K.: GUD and P GS of the Armed Forces of Ukraine, 2022
  4. TKP 7-000 (162) 01.03 "Collection No. 3 of the Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022." - K.: GUD and PGSh AFU, 2022
  5. TKP 7-000 (162) 01.04 "Collection No. 4 of Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022." - Kyiv: GUDtAP of the General Staff of the Armed Forces of Ukraine, 2022.
  6. Collection of Tactical Calculations with Examples: a textbook / team of authors. - Kyiv: Ivan Cherniakhivskyi National University, 2018. - 96 p.
  7. Order of the MoD of 05.09.2013 No. 595 "On Approval of the Regulation on Military Transport by Rail, Sea, River and Air".

8. Generalised materials on the analysis of the performance of tasks by the military units of the Armed Forces in the course of the ATO.

9. Generalised materials of the analysis of preparation and conduct of operations (combat actions) by the troops (forces) of the AFU during the ATO. -111c.

10. The use of mechanised units in the performance of special tasks in modern armed conflicts. - Ed. "Science and Technology", 2008. - 98 p.

11. VP 7(3)-00(01).01 Temporary instruction on the process of analysing the actions of training activities. Centre for Operational Standards and Methods of Training of the Armed Forces of Ukraine, Main Training Directorate of the Armed Forces of Ukraine, 2019. 40 c.

12. OP 7(3)-(01-05)03.01 Guidelines "Organisation, management and improvement of the fire system in modern conditions". Centre for Operational Standards and Methods of Training of the Armed Forces of Ukraine, Main Training Directorate of the Armed Forces of Ukraine, 2019. 120 c.

#### Information sources

Official website of the Ministry of Defence of Ukraine: <http://www.mil.gov.ua/>

Scientific-theoretical and scientific-practical journal "Science and Defence" <http://www.nio.mil.gov.ua/>

Official website of the Verkhovna Rada of Ukraine: <http://zakon2.rada.gov.ua/laws/a#Find>

Official website [www.vaodessa.org.ua](http://www.vaodessa.org.ua)

## Titles of topics and distribution of study time by type of study session

№	Types training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Fundamentals of combat employment of a mechanised battalion (company) in the main types of combat (tactical actions).</b>					
2	Lecture	2	2		<p><b>Class 1: Organisation, weapons, military equipment and combat capabilities of a mechanised (infantry, tank) battalion (company).</b></p> <p>1. Place and role of the discipline in the educational process.</p> <p>2. Organisation, armament and combat equipment of a mechanised (motorised infantry, tank) battalion (company) on an armoured personnel carrier (APC). Technical specifications of weapons and military equipment.</p> <p>3. Combat capabilities of a mechanised battalion (company).</p>
3	Group session	2	2		<p><b>Class 2: Organisation, weapons, combat capabilities and basics of combat use of artillery, anti-tank, grenade launcher and anti-aircraft units of a mechanised battalion.</b></p> <p>1. The tasks performed by artillery in various types of combat. The purpose, composition, combat order, and combat capabilities of regular and attached battalion artillery units.</p> <p>2. Organisational structure, weapons and combat capabilities of the battalion's machine gun, anti-tank, grenade launcher and anti-aircraft missile platoons.</p> <p>3. The use of artillery, machine gun, anti-tank, grenade launcher and anti-aircraft missile units of the battalion in the main types of combat.</p>
4	Seminar session	2	2		<p><b>Class 3: Organisation, armament, military equipment, combat capabilities of a mechanised (motorised infantry, tank) battalion (company) and its combat units.</b></p> <p>1. Organisation, armament and combat equipment of a mechanised (motorised infantry, tank) battalion (company) on an armoured personnel carrier (APC). Technical specifications of weapons and military equipment.</p> <p>2. Combat capabilities of a mechanised battalion (company).</p> <p>3. Tasks performed by artillery in various types of combat. Purpose, composition, combat order and combat capabilities of regular and attached battalion artillery units.</p>

				<p>4. Organisational structure, weapons and combat capabilities of the battalion's machine gun, anti-tank, grenade launcher and anti-aircraft missile platoons.</p> <p>5. The use of artillery, machine gun, anti-tank, grenade launcher and anti-aircraft missile units of the battalion in the main types of combat.</p>
<b>Total for the topic</b>		<b>6</b>	<b>6</b>	
<b>Topic 2. Fundamentals of the use of motorised rifle (tank) brigade (regiment) of the armies of neighbouring states.</b>				
5	Lecture	2	2	<p><b>Class 1: Fundamentals of combat employment of motorised infantry (tank) brigade (regiment) of the armies of neighbouring states.</b></p> <p>1. Organisational and staffing structure, tactical and technical characteristics of weapons and military equipment of a motorised rifle (tank) brigade (regiment).</p> <p>2. Fundamentals of combat employment of a motorised rifle (tank) brigade (regiment) in offensive combat (purpose, tasks, combat order, tactical standards).</p> <p>3. Fundamentals of combat employment of a motorised infantry (tank) brigade (regiment) in defensive combat (purpose, tasks, combat order, tactical standards).</p>
<b>Total for the topic</b>		<b>2</b>	<b>2</b>	
<b>Topic 3: Defensive combat of a mechanised battalion (company).</b>				
6	Lecture	2	2	<p><b>Class 1: Preparation and conduct of a defensive battle by a mechanised battalion (company).</b></p> <p>1. A mechanised battalion (company) in defensive combat.</p> <p>2. Conducting a defensive battle. Features of manoeuvre defence.</p>
7	Group session	2	2	<p><b>Class 2: Preparing for defensive combat (military decision-making process (MDMP)).</b></p> <p>1. The work of the battalion commander and staff in organising defensive combat Military decision-making process (MDMP). Stages of planning and their content.</p> <p>2. Responsibilities of officials in the military decision-making process (MDMP).</p>
8	Group session	2	2	<p><b>Class 3: Military Decision Making Process (MDMP).</b></p> <p>1. Analyse the assignment.</p> <p>2. Developing options for action.</p> <p>3. Analysis of options for action.</p> <p>Tactical objective No. 1.</p> <p>The transition of a BTG to defence in the absence of a collision with the enemy.</p>
9	Group session	6	6	<p><b>Class 4. Transition of a BTG to defence in the absence of a collision with the enemy.</b></p> <p>1. Understanding the task, assessing the situation (according to the Military Decision-Making Algorithm (MDMP)).</p> <p>2. Development of options for action (SOAs). Analysis and justification (A&amp;J).</p> <p>3. Developing an idea and drawing it on a working map.</p>

					4. 4. Modular control.
<b>Total for the topic</b>		<b>12</b>	<b>12</b>		
<b>Topic 4. Movement of a mechanised battalion (company).</b>					
10	Lecture	2	2		<b>Class 1: March of a mechanised battalion (company).</b> 1. A mechanised battalion (company) on the march. 2. Methodology for calculating the march of a mechanised battalion.
11	Practical session	6	6		<b>Class 2. March of a mechanised battalion.</b> 1. Analyse the assignment. 2. Building a marching order, distribution of forces and means in the column. 3. Calculating the march of a mechanised battalion.
12	Group session	2	2		<b>Class 3: Transporting a mechanised battalion by various means of transport.</b> 1. Organise and carry out the transport of a mechanised battalion. 2. Methodology for calculating the cost of transporting a battalion by rail.
<b>Total for the topic</b>		<b>10</b>	<b>10</b>		
<b>Topic 5. Offensive combat of a mechanised battalion (company).</b>					
13	Lecture	2	2		<b>Class 1: Preparation and conduct of an offensive battle by a mechanised battalion (company).</b> 1. Mechanised battalion (company) in offensive combat. Purpose, types and conditions of the offensive. 2. Conducting offensive combat. Tactical objective 2. The BTGr's transition to the offensive from a position of direct contact with the enemy with the regrouping of units
14	Group session	6	6		<b>Class 2: Decision-making for offensive combat.</b> 1. Understanding the task, assessing the situation (according to the military decision-making algorithm (MDMP)). 2. Development of options for action (SOAs). Analysis and justification (A&J). 3. Developing an idea and drawing it on a working map.
<b>Total for the topic</b>		<b>8</b>	<b>8</b>		
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>40</b>	<b>40</b>		

## 4.18 WS 2 "Logistics support of combat operations"

### **The general objective of the discipline:**

to provide knowledge on the processes of managing logistics services and subordinate logistics units; to understand the processes of comprehensive support of units; to develop skills of planning logistics support of various types of combat (march) using standard operating procedures; to master rational methods of officer's work, to develop creative thinking for solving complex professional tasks; to bring diverse knowledge into a single toolkit for successful performance of tasks

### **As a result of studying the discipline, the student should**

*to know:*

organisational structure and logistics tasks;

organising and maintaining the military economy of the military unit;

Organisational and staffing structure, tasks and capabilities of logistics support bodies, basics of their application in various types of tactical actions;

organising the supply of material resources to the rear;

basics of logistics planning and accounting using LOGFAS software.

organising logistical support for the mobilisation and putting military units on alert;

organising logistics planning in accordance with NATO Standard Operating Procedures (MDMP);

basics and rules of logistics support during preparation and during combat (march);

*be able to:*

manage the logistics support service (by specialisation) of the military unit and organise its work during preparation and during combat (march);

to make decisions and manage units during combat missions, including logistical support;

organise the protection, security and defence of material and technical means and logistics support forces;

Read tactical symbols used to display the logistical situation;

read and maintain working maps (diagrams), understand tasks, assess the situation, make decisions as a logistics officer in various types of tactical actions;

use the LOGFAS software package to solve logistics reporting tasks.

### **Organisational and methodological guidelines:**

The methodology of teaching the educational component is based on the basic principles of didactics (theory of reasoning and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

Frontal learning, when all students perform the same task at the same time under the supervision of a teacher;  
group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;  
individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;  
training;  
situational and cognitive.

### **Information and methodological support:**

Instruction on the organisation of material support for servicemen of the Armed Forces of Ukraine in peacetime and special period: Order of the Ministry of Defence of Ukraine of 29.04.2016 No. 232.

Norms of consumption of fuel, oils, greases and special liquids during operation, repair and conservation of military equipment and weapons of the Armed Forces of Ukraine, approved by the Order of the Minister of Defence of Ukraine of 06.01.1999 No. 01.

Temporary instruction on bath and laundry services for the personnel of the Armed Forces of Ukraine for peacetime and special period, approved by the commander of military unit A2516 on 28.12.2017, no. 312.

Norms for the accumulation, maintenance and echeloning of fixed stocks of missiles and ammunition in the Armed Forces of Ukraine in peacetime, approved by Order of the NGSh-GC of the Armed Forces of Ukraine of 15.07.2008 No. \*4 (as amended by the Order of the General Staff of the Armed Forces of Ukraine of 20.07.2016).

Norms of irrecoverable losses, withdrawal for repair of weapons and equipment, and expenditure of other material resources in the operations of the Armed Forces of Ukraine. Enacted by the Order of the General Staff of the Armed Forces of Ukraine 26.01.2016 No. \*\*2.

Collection of combat kits and norms of military stocks of missiles and ammunition in the Armed Forces of Ukraine, approved by the order of the CSR of the Armed Forces of Ukraine of 27.05.2003 No. \*3.

Instruction on Preparing and Conducting Mobilisation Deployment of the Armed Forces of Ukraine, approved by the Order of the Ministry of Defence of Ukraine and the General Staff of the Armed Forces of Ukraine of 15.12.2017, No. 19.

On the introduction of samples and forms of documents for the preparation and conduct of mobilisation deployment of the Armed Forces of Ukraine, approved by the mobilisation directive of the General Staff of the Armed Forces of Ukraine of 03.07.2018 No. 321/1260 DSK.

Regulation on the Procedure for the Creation, Storage, Renewal (Replacement), and Use of Immovable Stocks of Logistics Equipment and Other Logistics Material in the Armed Forces of Ukraine, approved by the Order of the Ministry of Defence of Ukraine of 13.05.2016 No. 6t.

On Approval of the Procedure for Determining the Objectively Necessary Amount of Fuel for Household Needs in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine of 19.10.2018 No. 524.

On Approval of the Procedure for the Use of Apartment Property in the Ministry of Defence of Ukraine and the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine of 30.01.2019 No. 34.

Methodological recommendations on the organisation of logistics support in the base camps of brigades (battalions), company (platoon) strongholds and combat positions - K.: Ryl AFU, 2016. - 19 p.

Methodological recommendations on the organisation and escort of convoys. - Kyiv: Ryl AFU, 2016. - 9 p.

Combat Regulations of the Mechanised and Tank Forces of the Land Forces of the Armed Forces of Ukraine. Part I. Brigade. - K.: KSV ZSU, 2016.

The Combat Statute of the Mechanised and Tank Troops of the Armed Forces of the Armed Forces of Ukraine. Part II. Battalion, Company - K.: CSR of the Armed Forces of Ukraine, 2016.

The Joint Logistics Doctrine, SP 4-00(30)03.01.

Doctrine "Use of Logistics Forces", VKP 4-32(03.01).

Logistics Forces Doctrine, VKP 4-32(41.01).

The Doctrine of Logistics Support of the Land Forces of the Armed Forces of Ukraine, VKP 4-00(11.01).

Doctrine "On the organisation of movements and transportations in the Armed Forces of Ukraine", VKP 4-00(03.01).

Doctrine "Provision of material and technical means, works and services", VKP 4-179(03.01).

Combat Statute "Logistics of the Land Forces of the Armed Forces of Ukraine (tactical level)", BP 4-32(11.01).

Combat Statute "Logistics Operations of the Armed Forces of Ukraine (tactical level)", BP 4-146(11.01).

Combat manual "Troop deployment operations (tactical level)", BP 4-147(11.01).

Doctrine "Infrastructural Support of the State Defence Forces", VKP 4-144(03.01).

Procedure "Work of the commander and staff of the tactical command and control unit on battle (combat operations) planning according to NATO standard operating procedures" (brigade (regiment), battalion and equivalent headquarters), TKP 3-(00)152(03.01).

Guidelines for planning and organising combat according to NATO standards (brigade (battalion) headquarters and equivalent), GP 7(5)-00(11)03.01.

On Approval of the Temporary Procedure for the Processing of Operational (Combat) Documents, approved by the Order of the Commander-in-Chief of the Armed Forces of Ukraine of 11.09.2020 No. 140.

On Approval of the Regulation on Military Transportation by Rail, Sea, River and Air: Order of the Ministry of Defence of Ukraine of 05.09.2013 No. 595.

R.V. Bulgakov. Specialised software LOGFAS. Part I. Logistics reporting: a textbook - Odesa: Military Academy (Odesa), 2023. 80 p.

### **Auxiliary**

Logistics support of a mechanised (tank) battalion in combat and other operations. Part I. Logistics support: a textbook / E.A. Ivanchenko et al: Military Academy, 2018. 316 p.

Registration and maintenance of combat documents of logistics support (by logistics services) of a military unit (subdivision): a textbook / O.M. Maslii et al: Military Academy, 2020. 190 p.

Military rear. Basics of logistics support of military units (subdivisions), tactical groups: K.: Rear of the Armed Forces of Ukraine, 2015. 270 p.

## Titles of topics and distribution of study time by type of study session

№	Types training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
<b>Topic 1: General provisions of the logistics support organisation.</b>					
1	Lecture	2	2		<b>Class 1: Comprehensive support of combat and day-to-day activities of military units.</b> 1. Comprehensive support of combat and day-to-day activities of military units. 2. The system of logistics support of the Armed Forces of Ukraine.
2	Group session	2	2		<b>Class 2. The system of logistics support for troops.</b> 1. Tasks, types, objects of the system of logistics support of troops. 2. Measures of logistical support of a military unit.
3	Group session	2	2		<b>Class 3: Logistics forces and means.</b> 1. Military-level logistics forces and means. 2. Forces and means of logistics support at the operational level. 3. Strategic-level logistics forces and means.
4	Group session	1	1		<b>Class 4. The system of technical support of troops' actions.</b> 1. The concept of the system of technical support for military operations. 2. Measures of technical support of the military unit.
5	Group session	1	1		<b>Class 5. Forces and means of technical support.</b> 1. Military-grade technical support forces and means. 2. Forces and means of technical support of the operational level. 3. Strategic level technical support forces and means.
6	Group session	2	2		<b>Class 6. Conventional symbols used in logistics documents.</b> 1. General requirements for the application of symbols. Amplifiers.

					2. Conventional symbols used in logistics documents.
<b>Total for the topic</b>		<b>10</b>	<b>10</b>		
<b>Topic 2. Organisation of provision of material and technical means, works and services.</b>					
7	Group session	2	2		<b>Class 1: General provisions for the provision of material and technical means, works and services.</b> 1. Purpose, principles and functions of providing troops with material and technical means, works and services. 2. Classes of supply of material and technical resources.
8	Group session	2	2		<b>Class 2. Material assets and their stocks.</b> 1. Stocks of material assets. 2. Settlement and delivery units. 3. Standards for the accumulation, maintenance and echeloning of stocks of material resources.
9	Group session	2	2		<b>Class 3. Material support of troops.</b> 1. Planning of troop supply. Initial data for planning. 2. Procedure for equipping troops with material resources.
10	Group session	2	2		<b>Class 4. Technical means of the rear.</b> 1. Technical means of the rear by type of support. 2. The procedure for manning troops with technical means.
11	Practical session	4	4		<b>Class 5. Preparation of the calculation of material and technical resources (by specialisation).</b> 1. Methodology for calculating the provision of material and technical resources. 2. Calculation of the provision of material and technical resources.
12	Group session	4	4		<b>Class 6. Logistics units of a military unit.</b> 1. Purpose, tasks, capabilities and organisational structure of a logistics platoon. 2. Purpose, tasks, capabilities and organisational structure of the logistics battalion.
<b>Total for the topic</b>		<b>16</b>	<b>16</b>		
<b>Topic 3: Organisation of transport support for troops.</b>					
13	Lecture	2	2		<b>Class 1: The system of organising movements and transportations.</b> 1. Fundamentals of military transport organisation. Types of transport. 2. The structure of transport support bodies.
14	Group session	2	2		<b>Class 2: Organisation of military road transport (MRT).</b> 1. Basic provisions for the organisation of military road transport. 2. Organisation of loading and unloading operations. 3. Principles of organising the supply and evacuation of material resources.

15	Group session	2	2		<b>Class 3: Organisation of military transport by rail, water and air.</b> 1. Basic requirements for transporting troops. 2. Calculations of transportation and loading of troops. Logistical support.
<b>Total for the topic</b>		<b>6</b>	<b>6</b>		
<b>Topic 4. Fundamentals of the use of forces and means of material support.</b>					
16	Lecture	2	2		<b>Class 1: General provisions on the work of logistics support services in preparation for and during combat operations.</b> 1. Responsibilities of military unit officials for organising logistical support. 2. Combat and planning documents for logistics support.
17	Group session	2	2		<b>Class 2: Basics of logistics support of military units in combat and other operations.</b> 1. Preparation, positioning and movement of the rear. Supply and evacuation routes. 2. Organisation of rear reconnaissance and logistics cooperation. 3. 3. Use of the local industrial base to supply troops and solve other problems.
18	Group session	2	2		<b>Class 3: Organisation of logistics support for a military unit in preparation for and during combat.</b> 1. Content of logistics support measures in preparation for combat. 2. Actions of logistic support forces and means in the course of combat. 3. 3. Temporary logistical support bodies.
19	Group session	2	2		<b>Class 4. Organising the delivery of material resources.</b> 1. Principles and conditions for organising the supply of material resources. 2. Forces and means of transport, the basics of their use in combat. 3. The work of military unit officials in planning and organising transportation and evacuation.
20	Group session	4	4		<b>Class 5. Maintaining a working map by the head of the logistics service.</b> 1. Procedure for drawing up and maintaining a work card. 2. Drawing up a working map in preparation for a battle (march).
21	Group session	4	4		<b>Class 6. Organisation of protection, security and defence of logistics units.</b> 1. Organisation of protection and camouflage of logistics units. 2. Organisation of security and defence of the area where the logistics units are deployed. 3. Plan for the protection, security and defence of the logistics unit.
22	Group session	2	2		<b>Class 7. Organisation of logistics support for a military unit in preparation for and during combat.</b> 1. Actions of logistic support forces and means in the course of combat. 2. Organising the delivery of material resources. 3. Organisation of protection, security and defence of material support units.

23	Group session	2	2		<p><b>Class 8. Peculiarities of logistics support of troops' actions in different conditions.</b></p> <ol style="list-style-type: none"> <li>1. Peculiarities of logistical support of troops' actions at night.</li> <li>2. Peculiarities of logistical support of troops in winter.</li> <li>3. Peculiarities of logistical support of troops in forest and mountainous areas.</li> <li>4. Peculiarities of logistical support of troops' actions in the conditions of enemy UAV use.</li> </ol>
<b>Total for the topic</b>		<b>20</b>	<b>20</b>		
<b>Topic 5. Certificate course on the use of NATO's specialised software LOGFAS.</b>					
24	Group session	2	2		<p><b>Class 1: Introduction to the LOGFAS course.</b></p> <ol style="list-style-type: none"> <li>1. Introduction to the structure of the course.</li> <li>2. ENTRANCE CONTROL.</li> </ol>
25	Group session	5	4	1	<p><b>Class 2: Overview of the specialised software LOGFAS.</b></p> <ol style="list-style-type: none"> <li>1. Purpose, tasks to be solved, set of tools.</li> <li>2. Demonstration of LOGFAS software capabilities.</li> <li>3. The structure of accounting for material and technical assistance in the Armed Forces of Ukraine.</li> <li>4. Install the LOGFAS v.7.2.0 software.</li> </ol> <p><i>Independent work:</i> Terminology of the LOGFAS SPZ.</p> <ol style="list-style-type: none"> <li>1. Glossary of basic terms.</li> </ol>
26	Group session	2	2		<p><b>Class 3. LOGFAS Connection Manager (LCM) module.</b></p> <ol style="list-style-type: none"> <li>1. Create, edit, and delete databases.</li> <li>2. Export and import of databases.</li> <li>3. Updating databases. The concept of networking.</li> </ol>
27	Group session	5	4	1	<p><b>Class 4. Geographical Data Management Module (GEOMAN).</b></p> <ol style="list-style-type: none"> <li>1. Setting up the GEOMAN module.</li> <li>2. Create, edit and delete data on logistics infrastructure objects.</li> <li>3. Export and import of geographic data.</li> </ol> <p><i>Independent work:</i> Terminology of the LOGFAS SPZ.</p> <ol style="list-style-type: none"> <li>1. Glossary of basic terms.</li> </ol>
28	Group session	7	6	1	<p><b>Class 5. LOGFAS Data Management Module (LDM).</b></p> <ol style="list-style-type: none"> <li>1. Set up the LDM module.</li> <li>2. Create, edit, and delete forces and equipment.</li> <li>3. Manage data slices (profiles of the state of force availability).</li> <li>4. Export and import of data on forces and equipment.</li> <li>5. Exchange of data slices (reports).</li> </ol>

					<i>Independent work:</i> The concept of Reportable Item Code (RIC). 1. Working with RIC databases. Units of measurement.
29	Practical session	7	6	1	<b>Class 6. Practical Session on the use of LOGFAS tools.</b> 1. Complex task (Mission #1). 2. Typical errors of operators when working with LOGFAS software, system failures and ways to eliminate them. <i>Independent work:</i> Accounting for MTD. 1. Repetition of the material. Preparation for the final test.
30	Practical session	2	2		<b>Class 7. Algorithm of the LOGFAS operator.</b> 1. Algorithm of actions in the LCM module. 2. Algorithm of actions in the GEOMAN module. 3. Algorithm of actions in the LDM module.
31	Practical session	4	4		<b>Class 8. Exit control.</b> 1. Complex task (Mission #2). 2. Certification of listeners.
<b>Total for the topic</b>		<b>34</b>	<b>30</b>	<b>4</b>	
<b>Topic 6. NATO Standard Operating Procedures.</b>					
32	Group session	2	2		<b>Class 1: Methods and content of work of logistics management bodies of military units.</b> 1. Methods of work of logistics management bodies. 2. Sequence and content of work of logistics management bodies.
33	Group session	2	2		<b>Class 2. General principles of the military decision-making process (MDMP).</b> 1. The history of the development of operations planning (warfare) of NATO member states. 2. Combat documents.
34	Group session	2	2		<b>Class 3. STAGE 1: Receiving the mission. Receiving the mission.</b> 1. Preparation (collection) of initial data, determination of priority measures to prepare logistics units for combat (march). 2. Calculation of time. Orientation of subordinates in preparation for battle (march). 3. Drawing the initial tactical and logistical situation on the working map of the chief of logistics. 4. Developing proposals for logistical support at the prior request of WARNO#1.
35	Group session	2	2		<b>Class 4. STAGE 2: Task analysis. Mission analysis. Part 1.</b> 1. Understand the task set by the higher authority (HA) and the commander. 2. Tasks and procedure for conducting logistics reconnaissance (reconnaissance).
36	Group session	2	2		<b>Class 5. STAGE 2: Task analysis. Mission analysis. Part 2.</b> 1. Assess the situation and draw conclusions from it. 2. Calculations of the need and provision of the military unit with material resources.

					3. Developing proposals for logistical support at the prior request of WARNO#2.
37	Group session	2	2		<b>Class 6. STAGES 3-6.</b> 1. Development of action options. Source of action (SOA) development. 2. Analysis of options for action (battle simulation / modelling). COA Analysis (War Game). 3. Comparison of action options. COA Comparison. 4. Approval of the action option. COA Approval.
38	Group session	2	2		<b>Class 7. STAGE 7. Development of a logistics plan. Orders Production, Dissemination and Transition.</b> 1. Development, coordination and approval of the logistics plan. 2. Clarification, amendment of OPLAN/OPORD.
<b>Total for the topic</b>		<b>14</b>	<b>14</b>		
<b>Topic 7. Organisation of logistics support for a military unit in defence.</b>					
39	Group session	4	4		<b>Class 1: Logistics support measures for military units in combat and other operations.</b> 1. Preparation, deployment and movement of the rear. Supply and evacuation routes. 2. Organisation of logistics (rear) intelligence and logistics interaction (by rear services). 3. Use of the local industrial and economic base to supply the troops and solve other problems. Complex tactical task No. 2 "Logistics support of a military unit in defence".
40	Group session	2	2		<b>Class 2. STAGE 1: Receiving the task. Receiving the mission.</b> 1. Preparation (collection) of initial data, identification of priority measures to prepare logistics units for defence. 2. Calculation of time. Orientation of subordinates to prepare for defence. 3. Drawing the initial tactical and logistical situation on the working map of the chief of logistics. 4. Developing proposals for logistical support at the prior request of WARNO#1.
41	Group session	4	4		<b>Class 3. STAGE 2: Task analysis. Mission analysis. Part 1.</b> 1. Understand the task set by the higher authority (HA) and the commander. 2. Tasks and procedure for conducting logistics reconnaissance (reconnaissance).
42	Group session	4	4		<b>Class 4. Stage 2: Task analysis. Mission analysis. Part 2.</b> 1. Assess the situation and draw conclusions from it. 2. Calculations of the need and provision of the military unit with material resources. 3. Developing proposals for logistical support at the prior request of WARNO#2.

43	Group session	3	2	1	<p><b>Class 5. STAGES 3-6.</b></p> <p>1. Development of action options. Source of action (SOA) development.</p> <p>2. Analysis of options for action (battle simulation / modelling). COA Analysis (War Game).</p> <p>3. Comparison of action options. COA Comparison.</p> <p>4. Approval of the action option. COA Approval.</p> <p><i>Independent work:</i> Selecting a method of action options and conducting a briefing.</p> <p>1. Selecting the method of drawing options.</p>
44	Group session	5	4	1	<p><b>Class 6. STAGE 7. Development of a logistics plan. Orders Production, Dissemination and Transition.</b></p> <p>1. Development, coordination and approval of the logistics plan.</p> <p>2. Clarification, amendment of OPLAN/OPORD.</p> <p><i>Independent work:</i> Preparation of the LOC to manage logistics units in the course of defence.</p> <p>1. Scheme of communication, control and interaction signals.</p>
45	Group session	2	2		<p><b>Exercise 7. Management of logistics units of a military unit in the course of defence.</b></p> <p>1. Management of logistics units in the course of defence.</p> <p>2. Situational tasks (actions based on the introductory ones).</p>
<b>Total for the topic</b>		<b>24</b>	<b>22</b>	<b>2</b>	
<b>Assessment activities</b>		<b>6</b>	<b>6</b>		<b>Exam.</b>
<b>Total for the educational component</b>		<b>130</b>	<b>124</b>	<b>6</b>	

#### 4.19 VC 03 "USE AND QUALITY CONTROL OF FUEL AND FUELS"

##### **The general objective of the educational programme component:**

to provide knowledge of the processes of fuel and lubricant quality control in subordinate units of a military unit; to develop skills in planning fuel quality control using standard operating procedures; to master rational methods of officer's work, to develop creative thinking to solve complex professional problems; to bring diverse knowledge into a single toolkit for the successful performance of tasks of a tactical level fuel officer.

Based on the results of studying the component of the educational programme, the student should  
*to know:*

origin, methods of extraction, classification of oil and oil products, its composition and physical and chemical properties, methods and techniques for the production of fuels and lubricants and special technical fluids;

know the procedure and standards for providing military units with fuel and lubricants and technical means of fuel service in peacetime and wartime;

use modern information technologies for planning, accounting and reporting on fuel services;

understand the efficient use of fuels and lubricants;

correct use and trouble-free operation of technical means of the fuel and lubricants service in the units of the military unit.

*be able to:*

use fuels and lubricants and special technical fluids correctly in accordance with their intended use;

be able to organise the acceptance, storage, receipt, issue and accounting of material means of service, refuelling of weapons and military equipment in stationary and field conditions;

determine the quantity and quality of light and dark petroleum products in the tank farms of military units and support centres, and properly store fuels and lubricants;

take samples of light oil products and submit them for testing;

work in cooperation with the chiefs of military branches and services of the military unit in performing the tasks of the fuel service to ensure and control the quality of fuel;

##### **Organisational and methodological guidelines:**

The methodology of teaching the educational component is based on the basic principles of didactics (theory of reasoning and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates

the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

frontal form of training, when all students perform the same task at the same time under the supervision of a teacher;

group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;

training;

situational and cognitive.

A verbal and visual method in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied in order for students to gain new knowledge and form the appropriate imagination.

The training (reproductive) method consists in performing complex actions in accordance with an algorithm (pre-established procedure) determined by the training leader to develop the necessary skills and ensure the coherence of military organisational structures.

Situational and cognitive - in reviewing and discussing real (probable) actions, learning about the experience of commanding troops (forces) in military conflicts and developing skills in information and analytical activities.

The above methods provide students with knowledge, skills, and abilities, but to develop their creative abilities, the class leader should use problem-based learning methods.

Problem-based teaching is when the class leader poses a problem to the students, solves it himself, but at the same time shows the ways of solving it, reveals the course of his thought. The immediate result of problem-based teaching should be that the student learns the method and logic of solving a particular problem, but not yet the ability to apply it independently. This method teaches students how to search for knowledge and helps them develop creative thinking skills.

The search (heuristic) method serves the purpose of gradually bringing students closer to solving problems on their own by first teaching them how to perform certain elements of the solution. It is used during Group Sessions when the method of finding the optimal solution is determined by the class leader, but the solution is found by the trainee.

Problem-based methods provide a deep assimilation of knowledge at the level of its creative application, mastery of creative thinking methods, and practical experience.

### **Logistics:**

Classes should be held in specialised classrooms, which should be equipped with personal computers at the rate of one workstation per two students and at the training centre's training ground. It is mandatory to use technical training aids during the training sessions.

### **Information and methodological support:**

1. On the Statute of the Internal Service of the Armed Forces of Ukraine: Law of 24.03.1999 №548-XIV // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Date of update: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed 28.07.2020).
2. Resolution of the Cabinet of Ministers of Ukraine of 05.08.2020 No. 686 "On Approval of the Norms of Losses of Oil Products during their Acceptance, Storage, Release, Transshipment and Transportation" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 30.08.2020).
3. Resolution of the Cabinet of Ministers of 28.07.06 No. 1041-012 "On Approval of the Procedure for Creation, Maintenance and Use of Fixed Stocks of Arms, Military Equipment, Ammunition and Other Material Resources in the Armed Forces of Ukraine".
4. Resolution of the Cabinet of Ministers of Ukraine of 03.05.2000 No. 748 "On Approval of the Regulation on Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 28.07.2020).
5. Resolution of the Cabinet of Ministers of Ukraine of 04.08.2000 No. 1225 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/1\\_doc2.nsf/link1/KP001225.html](http://search.ligazakon.ua/1_doc2.nsf/link1/KP001225.html) (accessed 28.07.2020).
6. Resolution of the Cabinet of Ministers of Ukraine of 29.05.1998 No. 759 (as amended) "On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/1\\_doc2.nsf/link1/KP980759.html](http://search.ligazakon.ua/1_doc2.nsf/link1/KP980759.html) (accessed 28.07.2020).
7. Law of Ukraine "On the Material Liability of Servicemen and Equated Persons for Damage Caused to the State" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021 URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed 08.08.2021).

8. Resolution of the Cabinet of Ministers of Ukraine of 15.07.2020 No. 604 "On Approval of the List of Arms, Weapons and Ammunition, the Shortage or Theft of which is Compensated by the Perpetrators in Multiple Ratio to their Value" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed 08.08.2021).

9. Order of the Ministry of Finance of Ukraine 17.06.2015 No. 572 "On Approval of Standard Forms for Reflecting Inventory Results by Budgetary Institutions".

10. Order of the Minister of Defence of Ukraine of 16.07.1997 No. 300 "On Approval of the Regulation on Military Economy of the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed 28.07.2020).

11. On Approval of the Instruction on Accounting for Military Property in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine 17.08.2017 No. 440 // Database "Legislation of Ukraine" / VR of Ukraine. Date of update: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed 28.07.2020).

12. Order of the Minister of Defence of Ukraine "On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service" of 29.03.2021 No. 81 // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed 10.08.2021).

13. Order of the Ministry of Defence of 12.11.2010 No. 590 "Regulations on the financial management of a military unit of the Armed Forces of Ukraine".

14. Order of the Ministry of Defence of Ukraine of 19.12.2014 No. 905 "On Approval of the Instruction on the Organisation and Maintenance of Accounting in the Armed Forces of Ukraine." -K.: 2014. Database URL: <https://studfile.net/preview/2265825/> (accessed 28.07.2020).

15. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 31.01.2024 No. 40 "On Approval of the Instruction on Record Keeping in the Armed Forces of Ukraine". - K.: 2024. Database URL: [https://zsu.at.ua/load/akti\\_ngsh\\_zsu/nakaz\\_ngsh\\_zsu\\_vid\\_07\\_04\\_2024\\_40\\_pro\\_zatverdzhennja\\_instrukciji\\_z\\_dilovodstva\\_v\\_zbrojnikh\\_silakh\\_ukrajini/5-1-0-19](https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukrajini/5-1-0-19) (accessed 15.04.2024).

16. Order of the MoD of 28.08.2019, no. 474. "On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating the Periods of Document Retention and the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating the Periods of Document Retention". Database URL: [https://www.mil.gov.ua/content/mou\\_orders/\\_mou\\_474.pdf](https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf) (accessed 10.08.2021).

17. Order of the Ministry of Defence of Ukraine of 06.01.1999 No. 01 "On Establishing Standards for the Consumption of Fuel, Oils, Greases and Special Liquids in the Operation, Repair and Preservation of Military Equipment and Arms of the Armed Forces of Ukraine".

18. Order of the Ministry of Defence of Ukraine of 13.10.2009 No. 513 "On Approval of Amendments to the Order of the Minister of Defence of Ukraine of 06.01.99 No. 01".

19. Order of the Ministry of Defence of Ukraine of 14.12.2007 No. 686 "On Approval of the Instruction on Organisation of Representation of Interests of the Ministry of Defence of Ukraine, Military Administration Bodies, Army Corps, Air Commands, Associations, Formations, Military Units, Military Educational Institutions, Institutions and Organisations of the Armed Forces of Ukraine in Cases Heard by Courts of General Jurisdiction, Claims and Lawsuits and Enforcement of Court Decisions".

20. Order of the Ministry of Defence of Ukraine of 09.11.2016 No. 596 "On Approval of the Instruction on Organisation of Transfer of Weapons, Military Equipment and Property for Repair".

21. Order of the Ministry of Defence of Ukraine of 11.06.14 No. 374dsk "On Approval of the List of Kits for Provision of Service Equipment and Property of the Fuel and Lubricants Service to the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime".

22. Joint Order of the Ministry of Defence of Ukraine with other ministries of 17.12.16 No. 791 "On Approval of the Procedure for Payments for Received Fuel and Lubricants and Food Products between Entities Directly Engaged in the Fight Against Terrorism in the Area of Anti-Terrorist Operation-".

23. Order of the Deputy MoD of Ukraine for Logistics of the Armed Forces of Ukraine of 23.05.00 No. 60 "On the introduction of the Instruction on documentary audit (inspection) of the fuel service of a military unit, warehouse, base and fuel supply centre".

24. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 11.04.1994 No. 7 "On the introduction of the Instruction on the handling of toxic technical liquids".

25. Order of the Deputy Minister of Defence of Ukraine for Logistics of 02.02.1994 No. 24 "On the introduction of the Guidelines for the handling of ethyl alcohol".

26. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997 No. 45 "On the organisation of operation and inspection of the condition of technical means of the fuel service of the Armed Forces of Ukraine".

27. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997, no. 46 "On the organisation of mass distribution of fuel to motor vehicles".

28. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 12.11.1998 No. 112 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine".

29. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30 December 2016 "On Approval of the Instruction on Establishing the Service Life of Technical Facilities for the Service of Fuels and Lubricants". Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 509 of 30 December 2016 "Guidelines for the Organisation of the Operation of Fuel Supply Centres, Bases, Fuel Depots of the Armed Forces of Ukraine".

30. Order of the Chief of the General Staff - Commander-in-Chief of the Armed Forces of Ukraine of 12.04.2010 No. 55 "On Approval and Enactment of the Table of Urgent Reports on Operational and Logistical Support of Troops (Forces) for Peacetime" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: [http://catalog.nuou.org.ua/index.php?option=com\\_sobipro&pid=128&sid=315183:book-81271&Itemid=0](http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0) (accessed 28.07.2020).

31. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 of 01 January 2024 "On Approval of the Regulation on Provision of Property to the Fuel and Lubricants Service in the Armed Forces of Ukraine".

32. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 "On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Liquids in the Armed Forces of Ukraine".

33. Order of the Commander-in-Chief of the Armed Forces of Ukraine 13.07.2023 No. 196 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Aviation Equipment in the Armed Forces of Ukraine".

34. Order of the Commander-in-Chief of the Armed Forces of Ukraine 14.12.2020 No. 222 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Ships, Boats (Vessels) of the Navy in the Armed Forces of Ukraine".

35. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 15.04.2023 "On the establishment of year-round use of low-freezing coolants in weapons and military equipment of the Armed Forces of Ukraine".

36. Order of the Commander-in-Chief of the Armed Forces of Ukraine of 23 January 24, No. 36/dsk "On Approval of the Time Table of the Armed Forces of Ukraine".

37. Guidelines for the storage of technical means of fuel service. Kyiv: Varta, 2000.

38. "Basic Provisions for Providing Military Units with Fuel and Lubricants". Phoenix, 2009.

39. Recommendations for planning the supply of fuel to military units and formations. Military publishing house. 1992.

## Titles of topics and distribution of study time by type of class

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
<b>Topic 1: Prospects for the development of fuel application science</b>					
1	Lecture	4	2	2	<b>Class 1: Current state and prospects for the development of fuel application science.</b> 1. The state of the art and prospects for the development of fuel application science. 2. Application of fuel quality requirements. 3. Classification and general requirements for fuel quality. <i>Independent work.</i> 1. Classification of fuel used in military equipment.
<b>Total for the topic</b>		<b>4</b>	<b>2</b>	<b>2</b>	
<b>Topic 2. Petrols.</b>					
2	Lecture	6	2	4	<b>Class 1 Application conditions and quality requirements for petrol</b> 1. Application conditions and quality requirements for petrol. 2. Normal and detonation combustion. 3. Types and applications of motor petrol. <i>Independent work.</i> 1. Normal and detonation combustion. 2. Conditions of use and quality requirements for aviation gasoline.
3	Laboratory withdrawal	4	4		<b>Class 2: Determining petrol quality indicators</b> 1. Preparing for laboratory tests. 2. Conducting laboratory tests.
<b>Total for the topic</b>		<b>10</b>	<b>6</b>	<b>4</b>	
<b>Topic 3. Diesel fuels.</b>					

4	Lecture	6	2	4	<p><b>Class 1. Conditions of use and quality requirements for diesel fuels.</b></p> <ol style="list-style-type: none"> <li>1. Types, composition and application of diesel fuels for high-speed diesel engines.</li> <li>2. Types, composition and application of diesel fuels for high-speed and low-speed diesel engines.</li> <li>3. The mixture of diesel fuels to be used.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Types, composition and use of diesel fuels for high-speed and low-speed diesel engines.</li> <li>2. The mixture of diesel fuels used.</li> <li>3. Types, composition and application of advanced diesel fuels.</li> </ol>
5	Laboratory session	4	4		<p><b>Class 2: Determination of the main quality indicators of diesel fuels.</b></p> <ol style="list-style-type: none"> <li>1. Preparing for laboratory tests.</li> <li>2. Conducting laboratory tests.</li> </ol>
<b>Total for the topic</b>		<b>10</b>	<b>6</b>	<b>4</b>	
<b>Topic 4. Fuels for aviation gas turbine engines</b>					
6	Lecture	4	2	2	<p><b>Class 1. Conditions of use and quality requirements for jet fuels.</b></p> <ol style="list-style-type: none"> <li>1. Conditions for the use of jet fuels.</li> <li>2. Quality requirements for jet fuels.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Quality requirements for jet fuels.</li> <li>2. Types, composition and application of jet fuels for subsonic aviation.</li> </ol>
7	Laboratory session	4	4		<p><b>Class 2: Determination of the main quality indicators of fuels for aircraft gas turbine engines.</b></p> <ol style="list-style-type: none"> <li>1. Preparing for laboratory tests.</li> <li>2. Conducting laboratory tests.</li> </ol>
<b>Total for the topic</b>		<b>8</b>	<b>6</b>	<b>2</b>	
<b>Topic 5. Fuel sampling and documentation.</b>					
8	Practical session	3	2	1	<p><b>Class 1: The procedure for taking fuel samples.</b></p> <ol style="list-style-type: none"> <li>1. Fuel sampling devices.</li> <li>2. The procedure for taking fuel samples.</li> <li>3. Drawing up a sampling report.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. The procedure for taking fuel samples.</li> </ol>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	

<b>Topic 6: Theoretical foundations of the use of lubricants.</b>					
9	Lecture	3	2	1	<b>Class 1: Basic hydrodynamic theories of lubricating oils.</b> 1. Hydrodynamic theory of oil application. 2. Purpose of lubricating oils . 3. Conditions of use of lubricating oils. 4. Requirements for the quality of lubricating oils. <i>Independent work.</i> 1. Hydrodynamic theory of oil application.
10	Group session	2	2		<b>Class 2. Application of motor oils.</b> 1. Brand, composition and use of oils for carburettor engines. 2. Brand, composition and use of oils for diesel engines.
<b>Total for the topic</b>		<b>5</b>	<b>4</b>	<b>1</b>	
<b>Topic 7. Transmission oils</b>					
11	Lecture	2	2		<b>Class 1. Performance properties of gear oils.</b> 1. Application conditions and quality requirements for gear oils. 2. Gear oils for hydromechanical transmissions.
12	Group session	3	2	1	<b>Class 2. Types and application of gear oils.</b> 1. Brand, composition and use of gear oils. 2. Gear oils for hydromechanical transmissions. <i>Independent work.</i> 1. Quality indicators of the universal service and conservation gear oil.
<b>Total for the topic</b>		<b>5</b>	<b>4</b>	<b>1</b>	
<b>Topic 8: Plastic lubricants.</b>					
13	Group session	3	2	1	<b>Class 1: Classification of greases.</b> 1. Classification of greases. 2. Properties of greases. <i>Independent work.</i> 1. Brand, composition and application of lubricants for ground vehicles. 2. Brand, composition and application of greases for aviation and marine equipment.
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 9: Special technical fluids</b>					

14	Practical session	3	2	1	<p><b>Session 1: Special technical fluids for ground military equipment.</b></p> <ol style="list-style-type: none"> <li>1. Application conditions and quality requirements for brake fluids.</li> <li>2. Application conditions and quality requirements for coolants.</li> <li>3. Types, composition and use of coolants.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Marks and key quality indicators for special technical fluids for aircraft.</li> </ol>
15	Laboratory session	4	2	2	<p><b>Class 2: Determination of oil quality indicators.</b></p> <ol style="list-style-type: none"> <li>1. Preparing for laboratory tests.</li> <li>2. Conducting laboratory tests.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Types and applications of greases and special technical fluids.</li> </ol>
<b>Total for the topic</b>		<b>7</b>	<b>4</b>	<b>3</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Topic 10. Organisation of quality control of fuels and lubricants and special liquids.</b>					
17	Lecture	3	2	1	<p><b>Class 1: Fuel quality control in the Armed Forces of Ukraine.</b></p> <ol style="list-style-type: none"> <li>1. Appointment and delivery of fuel quality control.</li> <li>2. Fuel quality control units.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Appointment and delivery of fuel quality control.</li> </ol>
18	Lecture	3	2	1	<p><b>Class 2: Organisation of fuel quality control at the military unit's warehouse.</b></p> <ol style="list-style-type: none"> <li>1. Quality control during fuel acceptance.</li> <li>2. Fuel quality control during storage.</li> </ol> <p>Fuel quality control at the point of delivery.</p> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Quality control when accepting fuel in railway tank cars.</li> <li>2. Quality control when accepting fuel in tanks.</li> </ol>
19	Group session	3	2	1	<p><b>Class 3: Types of analyses.</b></p> <ol style="list-style-type: none"> <li>1. Control fuel analysis.</li> <li>2. Full analysis.</li> <li>3. The concept of arbitrage fuel analysis.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Shipboard qualitative analysis.</li> <li>2. Shipboard quantitative analysis</li> <li>3. Operational analysis.</li> </ol>

20	Practical session	3	2	1	<p><b>Class 4. Organisation of fuel quality control in a military unit.</b></p> <ol style="list-style-type: none"> <li>1. Quality control during fuel acceptance.</li> <li>2. Fuel quality control during storage.</li> <li>3. Fuel quality control at the point of delivery.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Documentation of fuel samples in a military unit.</li> </ol>
21	Practical session	3	2	1	<p><b>Class 5. Field fuel quality control equipment.</b></p> <ol style="list-style-type: none"> <li>1. Tactical and technical characteristics of mobile fuel laboratories PLG-2 and PLG-3.</li> <li>2. Tactical and technical characteristics of portable laboratories PL-2m,8YU-44.</li> <li>3. Tactical and technical characteristics of hand-held laboratories VLC, RL.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Deployment sequence 8YU-44.</li> <li>2. Deployment of systems to ensure the operation of the GTD-3.</li> <li>3. The winding down of the VLC laboratory.</li> </ol>
<b>Total for the topic</b>		<b>17</b>	<b>12</b>	<b>5</b>	
<b>Topic 11. Restoring fuel quality.</b>					
22	Lecture	2	2		<p><b>Class 1: Methods and techniques used to restore fuel quality.</b></p> <ol style="list-style-type: none"> <li>1. Methods of restoring fuel quality.</li> <li>2. Organising work to restore fuel quality.</li> </ol>
23	Group session	5	2	3	<p><b>Class 2. Methodology for calculating fuel quality recovery.</b></p> <ol style="list-style-type: none"> <li>1. Sequence of work to restore fuel quality.</li> <li>2. Organisation of work to restore fuel quality.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Organising work to restore fuel quality.</li> </ol>
24	Practical session (calculation work)	5	2	3	<p><b>Class 3: Restoring the quality of non-condensable fuels and lubricants.</b></p> <ol style="list-style-type: none"> <li>1. Sequence of work to restore fuel quality.</li> <li>2. Organisation of work to restore fuel quality.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Technological scheme of oil product recovery.</li> </ol>
25	Laboratory session	4	4		<p><b>Class 4. Restoring the quality of fuels and lubricants.</b></p> <ol style="list-style-type: none"> <li>1. Preparing for laboratory tests.</li> <li>2. Conducting laboratory tests.</li> </ol>

26	Laboratory session	7	4	3	<p><b>Class 5. Determination of quality indicators in the DFG-3.</b></p> <ol style="list-style-type: none"> <li>1. Light petroleum products.</li> <li>2. Oils and greases.</li> <li>3. Special technical fluids.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Methods of recovering non-condensable fuels.</li> </ol>
27	Group session	2	2		<p><b>Class 6. Final lesson on the topic of fuel quality recovery.</b></p> <ol style="list-style-type: none"> <li>1. The sequence of work to restore fuel quality.</li> <li>2. Organisation of fuel quality control.</li> </ol>
<b>Total for the topic</b>		<b>25</b>	<b>16</b>	<b>9</b>	
<b>Topic 12 . Assessment of fuel quality when hiring a head of fuel service (head of storage department).</b>					
28	Lecture	2	2		<p><b>Class 1: Assessment of fuel quality when hiring a fuel manager.</b></p> <ol style="list-style-type: none"> <li>1. Documentary acceptance of the position of head of service.</li> <li>2. Documentary acceptance of the position of the head of the storage department.</li> </ol>
29	Practical session	3	2	1	<p><b>Class 2: Acceptance of fuels and lubricants at the fuel and lubricant warehouse.</b></p> <ol style="list-style-type: none"> <li>1. Acceptance of light oil products.</li> <li>2. Acceptance of dark oil products.</li> <li>3. Reception of OTRs.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Verification of documents certifying the quality of fuels and lubricants.</li> </ol>
30	Practical session	3	2	1	<p><b>Class 3: Checking the quality of fuel and poisonous technical liquids by the express method.</b></p> <ol style="list-style-type: none"> <li>1. Determining the presence of water in the tanks.</li> <li>2. Determining the presence of mechanical impurities.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Determining the quality of fuel by external signs.</li> </ol>
<b>Total for the topic</b>		<b>8</b>	<b>6</b>	<b>2</b>	
<b>Assessment activities</b>		<b>4</b>	<b>4</b>		<b>Examination</b>
<b>Total for the educational component</b>		<b>105</b>	<b>70</b>	<b>35</b>	

## 4.20 VC 04 "ORGANISATION OF SUPPLY OF ROCKET FUEL AND PROPELLANTS"

### **General objective of the educational programme component:**

to develop tactical thinking, the ability to solve problems independently and creatively in peacetime and wartime, and to apply the acquired knowledge in practice;

Acquisition of basic professional knowledge to perform professional tasks in the field of specialisation, ability to perform official duties.

### **As a result of studying the discipline, the student should**

*to know:*

Understand, analyse and assess the fuel situation in the daily activities and in various types of combat operations of the military unit;

know the procedure and standards for providing military units with fuel and lubricants and technical means of fuel service in peacetime and wartime;

use modern information technologies for planning, accounting and reporting on fuel services;

understand the effective ways of using the forces and means of the fuel service;

organisation and methods of conducting Tactical Exercise classes.

*be able to:*

be able to organise the acceptance, storage, receipt, issuance and accounting of material means of service, refuelling of weapons and military equipment in stationary and field conditions;

have the skills to perform technological operations on fuel service vehicles;

perform the functions of managing the fuel unit's service in peacetime, wartime and in a special period;

work in cooperation with the chiefs of military branches and services of the military unit in performing the tasks of the fuel service;

develop planning, administrative, reporting and other documents of the military unit's fuel service;

conduct individual training sessions with fuel service specialists, comply with standards, use training facilities and technical equipment for quality training of personnel of the units.

### **Organisational and methodological guidelines:**

The methodology of teaching the educational component is based on the basic principles of didactics (the theory of justification and learning). It provides a scientific and pedagogical description of the forms and methods of teaching,

indicates the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

frontal form of training, when all students perform the same task at the same time under the supervision of a teacher;

group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;

training;

situational and cognitive.

A verbal and visual method in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied in order for students to gain new knowledge and form the appropriate imagination.

The training (reproductive) method consists in performing complex actions in accordance with an algorithm (pre-established procedure) determined by the training leader to develop the necessary skills and ensure the coherence of military organisational structures.

Situational and cognitive - in reviewing and discussing real (probable) actions, learning about the experience of commanding troops (forces) in military conflicts and developing skills in information and analytical activities.

The above methods provide students with knowledge, skills, and abilities, but to develop their creative abilities, the class leader should use problem-based learning methods.

Problem-based teaching is when the class leader poses a problem to the students, solves it himself, but at the same time shows the ways of solving it, reveals the course of his thought. The immediate result of problem-based teaching should be that the student learns the method and logic of solving a particular problem, but not yet the ability to apply it independently. This method teaches students how to search for knowledge and helps them develop creative thinking skills.

The search (heuristic) method serves the purpose of gradually bringing students closer to solving problems on their own by first teaching them how to perform certain elements of the solution. It is used during Group Sessions when the method of finding the optimal solution is determined by the class leader, but the solution is found by the trainee.

Problem-based methods provide a deep assimilation of knowledge at the level of its creative application, mastery of creative thinking methods, and practical experience.

### **Logistics:**

Classes should be held in specialised classrooms, which should be equipped with personal computers at the rate of one workstation per two students and at the training centre's training ground. It is mandatory to use technical training aids during the training sessions.

### **Information and methodological support:**

1. On the Statute of the Internal Service of the Armed Forces of Ukraine: Law of 24.03.1999 №548-XIV // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Date of update: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed 28.07.2020).

2. Resolution of the Cabinet of Ministers of Ukraine of 05.08.2020 No. 686 "On Approval of the Norms of Losses of Oil Products during their Acceptance, Storage, Release, Transshipment and Transportation" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 30.08.2020).

3. Resolution of the Cabinet of Ministers of 28.07.06 No. 1041-012 "On Approval of the Procedure for Creation, Maintenance and Use of Fixed Stocks of Arms, Military Equipment, Ammunition and Other Material Resources in the Armed Forces of Ukraine".

4. Resolution of the Cabinet of Ministers of Ukraine of 03.05.2000 No. 748 "On Approval of the Regulation on Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 28.07.2020).

5. Resolution of the Cabinet of Ministers of Ukraine of 04.08.2000 No. 1225 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/KP001225.html](http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html) (accessed 28.07.2020).

6. Resolution of the Cabinet of Ministers of Ukraine of 29.05.1998 No. 759 (as amended) "On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/KP980759.html](http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html) (accessed 28.07.2020).

7. Law of Ukraine "On the Material Liability of Servicemen and Equated Persons for Damage Caused to the State" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021 URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed 08.08.2021).

8. Resolution of the Cabinet of Ministers of Ukraine of 15.07.2020 No. 604 "On Approval of the List of Arms, Weapons and Ammunition, the Shortage or Theft of which is Compensated by the Perpetrators in Multiple Ratio to their Value" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed 08.08.2021).

9. Order No. 112 of the Deputy Minister of Defence of Ukraine - Chief of the Logistics of the Armed Forces of 12.11.1998 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine"

10. Order of the Ministry of Finance of Ukraine 17.06.2015 No. 572 "On Approval of Standard Forms for Reflecting Inventory Results by Budgetary Institutions".

11. Order of the Minister of Defence of Ukraine 16.07.1997 No. 300 "On Approval of the Regulation on Military Economy of the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed 28.07.2020).

12. On Approval of the Instruction on Accounting for Military Property in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine 17.08.2017 No. 440 // Database "Legislation of Ukraine" / VR of Ukraine. Date of update: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed 28.07.2020).

13. Order of the Minister of Defence of Ukraine "On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service" of 29.03.2021 No. 81 // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed 10.08.2021).

14. Order of the Ministry of Defence of 12.11.2010 No. 590 "Regulations on the financial management of a military unit of the Armed Forces of Ukraine".

15. Order of the Ministry of Defence of Ukraine of 19.12.2014 No. 905 "On Approval of the Instruction on the Organisation and Maintenance of Accounting in the Armed Forces of Ukraine." -K.: 2014. Database URL: <https://studfile.net/preview/2265825/> (accessed 28.07.2020).

16. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 31.01.2024 No. 40 "On Approval of the Instruction on Record Keeping in the Armed Forces of Ukraine". - K.: 2024. Database URL: [https://zsu.at.ua/load/akti\\_ngsh\\_zsu/nakaz\\_ngsh\\_zsu\\_vid\\_07\\_04\\_2024\\_40\\_pro\\_zatverdzhennja\\_instrukciji\\_z\\_dilovodstva\\_v\\_zbrojnikh\\_silakh\\_ukrajini/5-1-0-19](https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukrajini/5-1-0-19) (accessed 15.04.2024).

17. Order of the MoD of 28.08.2019, no. 474. "On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating the Periods of Document Retention and the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating the Periods of Document Retention". Database URL: [https://www.mil.gov.ua/content/mou\\_orders/\\_mou\\_474.pdf](https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf) (accessed 10.08.2021).

18. Order of the Ministry of Defence of Ukraine of 06.01.1999 No. 01 "On Establishing Standards for the Consumption of Fuel, Oils, Greases and Special Liquids in the Operation, Repair and Preservation of Military Equipment and Arms of the Armed Forces of Ukraine".

19. Order of the Ministry of Defence of Ukraine of 13.10.2009 No. 513 "On Approval of Amendments to the Order of the Minister of Defence of Ukraine of 06.01.99 No. 01".

20. Order of the Ministry of Defence of Ukraine of 14.12.2007 No. 686 "On Approval of the Instruction on Organisation of Representation of Interests of the Ministry of Defence of Ukraine, Military Administration Bodies, Army Corps, Air Commands, Associations, Formations, Military Units, Military Educational Institutions, Institutions and Organisations of the Armed Forces of Ukraine in Cases Heard by Courts of General Jurisdiction, Claims and Lawsuits and Enforcement of Court Decisions".

21. Order of the Ministry of Defence of Ukraine of 09.11.2016 No. 596 "On Approval of the Instruction on Organisation of Transfer of Weapons, Military Equipment and Property for Repair".

22. Order of the Ministry of Defence of Ukraine of 11.06.14 No. 374dsk "On Approval of the List of Kits for Provision of Service Equipment and Property of the Fuel and Lubricants Service to the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime".

23. Joint Order of the Ministry of Defence of Ukraine with other ministries of 17.12.16 No. 791 "On Approval of the Procedure for Payments for Fuel and Lubricants and Food Products Received between Entities Directly Engaged in the Fight Against Terrorism in the Area of the Anti-Terrorist Operation-".

24. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 23.05.00 No. 60 "On the introduction of the Instruction on documentary audit (inspection) of the fuel service of a military unit, warehouse, base and fuel supply centre".

25. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 11.04.1994 No. 7 "On the introduction of the Instruction on the handling of toxic technical liquids".

26. Order of the Deputy MoD of Ukraine for Logistics of 02.02.1994, no. 24. "On the introduction of the Guidelines for the handling of ethyl alcohol".

27. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997 No. 45 "On the organisation of operation and inspection of the condition of technical means of the fuel service of the Armed Forces of Ukraine".

28. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997, no. 46 "On the organisation of mass distribution of fuel to motor vehicles".

29. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 12.11.1998 No. 112 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine".

30. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 31.08.2020 No. 85 "On Approval and Implementation of the Methodological Recommendations for Determining the Need for Arms and Military Equipment, Material and Technical Resources by Class of Supply, Land Plots and the Deployment of Troops (Forces) Required for Preparing and Performing Tasks to Repel Armed Aggression".

31. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30.12.2016 "On Approval of the Instruction on Establishing the Service Life of Technical Facilities for Fuel and Lubricants Service".

32. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 30.12.2016 No. 509, "Guidelines for the organisation of the work of fuel supply centres, bases, fuel depots of the Armed Forces of Ukraine".
33. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 25.04.2018 No. 170 "On the Procedure for the Preparation of Operational (Combat) Documents".
34. Order of the Chief of the General Staff of the Armed Forces of Ukraine 29.08.2016 No. 340 "On Approval of the Instruction on Organisation of Internal Control in the Armed Forces of Ukraine".
35. Order of the Chief of the General Staff - Commander-in-Chief of the Armed Forces of Ukraine of 12.04.2010 No. 55 "On Approval and Enactment of the Table of Urgent Reports on Operational and Logistical Support of Troops (Forces) for Peacetime" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: [http://catalog.nuou.org.ua/index.php?option=com\\_sobipro&pid=128&sid=315183:book-81271&Itemid=0](http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0) (accessed 28.07.2020).
36. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 of 01 January 2024 "On Approval of the Regulation on Provision of Property to the Fuel and Lubricants Service in the Armed Forces of Ukraine".
37. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 "On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Liquids in the Armed Forces of Ukraine".
38. Order of the Commander-in-Chief of the Armed Forces of Ukraine 13.07.2023 No. 196 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Aviation Equipment in the Armed Forces of Ukraine".
39. Order of the Commander-in-Chief of the Armed Forces of Ukraine 14.12.2020 No. 222 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Ships, Boats (Vessels) of the Navy in the Armed Forces of Ukraine".
40. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 15.04.2023 "On the establishment of year-round use of low-freezing coolants in weapons and military equipment of the Armed Forces of Ukraine".
41. Order of the Commander-in-Chief of the Armed Forces of Ukraine of 23 January 24, No. 36/dsk "On Approval of the Time Table of Urgent Reports of the Armed Forces of Ukraine".

42. Guidelines for the storage of technical means of fuel service. Kyiv: Varta, 2000.
43. "Use of Fuel on Military Equipment", Military Publishing House, 1994.
44. "Provision of fuel for military units". Military publishing house.
45. "Basic Provisions for Providing Military Units with Fuel and Lubricants". Phoenix, 2009.
46. Recommendations for planning the supply of fuel to military units and formations. Military publishing house. 1992.
47. Course of lectures in the discipline "Organisation of supply of fuels and lubricants". VA, Odesa, 2015.
48. Standards for equipping technical means of the fuel service.

**Titles of topics and distribution of study time by type of study session**

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Training sessions	Independent work	
<b>Topic1. Organisation of supply and structure of fuel service in a military unit in peacetime.</b>					
1	Lecture	5	2	3	<p><b>Class 1: Tasks and organisational structure of the fuel service of the Armed Forces of Ukraine</b></p> <ol style="list-style-type: none"> <li>1. The Fuel Service of the Armed Forces of Ukraine, its tasks and material and technical base.</li> <li>2. The place, role and tasks of the fuel service in the overall system of maintaining the combat readiness of troops and providing them with material resources.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Regulatory documents on the service life of fuels and lubricants.</li> <li>2. Basic concepts in the service .</li> </ol>
2	Group session	4	2	2	<p><b>Class 2 General provisions for organising security troops with fuel and technical equipment</b></p> <ol style="list-style-type: none"> <li>1. General provisions.</li> <li>2. Provision of fuel and technical means of service.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Regulatory documents on fuel service.</li> </ol>
3	Practical session	3	2	1	<p><b>Class 3: Organisational and staffing structure of the fuel service of a mechanised (tank) brigade</b></p> <ol style="list-style-type: none"> <li>1. Purpose, composition, capabilities and tasks of the fuel service of a mechanized brigade .</li> <li>2. Rights and duties of officials of the fuel and lubricants service of a military unit.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Duties of the chief of the fuel service of a military unit</li> <li>2. Duties of the head of the fuel and lubricants depot of a military unit</li> <li>3. Duties of the clerk of the fuel service of a military unit.</li> </ol>

4	Lecture	3	2	1	<p><b>Class 4. Military fuel depots and petrol stations of military units and formations</b></p> <p>1. Classification and purpose of military fuel depots. Location, equipment and operation of stationary and field warehouses.</p> <p><i>Independent work.</i></p> <p>1. Duties of the head of the fuel and lubricants warehouse of a military unit. 2. Duties of the clerk of the fuel service of a military unit.</p>
5	Practical session	3	2	1	<p><b>Class 5. Procedure for storing fuel and technical equipment in a military unit warehouse</b></p> <p>1. Regulatory documents on the storage of fuel and technical equipment in a military unit. 2. Organisation of storage of fuel, poisonous technical liquids and technical means of fuel service in the warehouse of a military unit.</p> <p><i>Independent work.</i></p> <p>1. Purpose, types, and operation of military fuel depots. 2. Purpose, operation of petrol stations.</p>
6	Practical session	3	2	1	<p><b>Class 6. Organisation of a military equipment refuelling point</b></p> <p>1. Composition and purpose of the military equipment fueling point. 2. Organising the operation of a military refuelling point.</p> <p><i>Independent work.</i></p> <p>1. Organising the operation of a military equipment refuelling point.</p>
7	Group Session	6	2	4	<p><b>Class 7. The procedure for refuelling vehicles in a military unit</b></p> <p>1. Organisation of refuelling of vehicles. 2. Procedure for issuing fuel, oils and lubricants at the refuelling point.</p> <p><i>Independent work.</i></p> <p>1. Operation of the refuelling point when vehicles leave the park. 2. Refuelling vehicles using automotive refuelling facilities in the field.</p>
<b>Total for the topic</b>		<b>25</b>	<b>14</b>	<b>11</b>	
<b>Topic 2 Security and fire protection measures at fuel service facilities</b>					
8	Lecture	3	2	1	<p><b>Class 1 Safety precautions for handling fuels and lubricants</b></p> <p>1. General provisions. 2. Safety rules for transporting fuels and lubricants.</p> <p><i>Independent work.</i></p> <p>1. Safety precautions for storing fuels and lubricants</p>

9	Group session	3	2	1	<p><b>Class 2 Safety precautions for handling fuels and lubricants</b></p> <ol style="list-style-type: none"> <li>1. Safety measures for storing fuels and lubricants.</li> <li>2. Safety precautions for handling poisonous technical substances and alcohol.</li> <li>3. Sessional health and safety at fuel service facilities.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Safety measures when dispensing fuels and lubricants</li> </ol>
10	Practical session	2	2		<p><b>Class 3 Fire protection of fuel service facilities</b></p> <ol style="list-style-type: none"> <li>1. Basic fire safety rules.</li> <li>2. Fire extinguishing agents and their use.</li> </ol>
<b>Total for the topic</b>		<b>10</b>	<b>6</b>	<b>4</b>	
<b>Topic 3. Standardisation of fuel, lubricants and special liquids consumption</b>					
11	Lecture	3	2	1	<p><b>Class 1: Purpose, procedure for introducing consumption standards for fuel, lubricants and special liquids</b></p> <ol style="list-style-type: none"> <li>1. Purpose, introduction of consumption rates for fuel, lubricants and special liquids.</li> <li>2. Application of norms for the consumption of fuel, oils, greases and special liquids in the operation, repair and conservation of military equipment and weapons .</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Introduction of consumption standards for fuel, lubricants and special liquids</li> </ol>
12	Lecture	2	2		<p><b>Class 2: Purpose and use of special liquids and ethyl alcohol</b></p> <ol style="list-style-type: none"> <li>3. Purpose and procedure for using special fluids.</li> <li>4. Purpose, procedure for the use of ethyl alcohol.</li> </ol>
13	Group session	3	2	1	<p><b>Class 3. Methodology for calculating fuel consumption in the operation, maintenance and upkeep of weapons and military equipment, logistics services</b></p> <ol style="list-style-type: none"> <li>1. Methodology for calculating fuel consumption in the operation of weapons and equipment.</li> <li>2. Methodology for calculating fuel consumption in the maintenance and upkeep of weapons and military equipment, as well as logistics services.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Regulatory documents on the provision of fuel and technical means for the fuel service in peacetime.</li> <li>2. Regulatory documents for establishing the service life before repair and write-off of fuel and lubricant service vehicles.</li> </ol>

14	Practical session	3	2	1	<p><b>Class 4. Normalisation of fuel, lubricants and special liquids consumption for maintenance, conservation and seasonal maintenance</b></p> <ol style="list-style-type: none"> <li>Regulatory documents on the standardisation of fuel and lubricant consumption.</li> <li>Organisation of maintenance, conservation, and seasonal servicing.</li> </ol> <p>Solving problems on the application of fuel consumption rates in the operation and maintenance of weapons and military equipment.</p> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Solving problems on the application of fuel consumption rates in the operation of weapons and equipment</li> <li>Solving problems on the application of fuel consumption standards for the maintenance and conservation of weapons and equipment.</li> </ol>
15	Practical session	3	2	1	<p><b>Class 5: Consumption rates and procedures for the use of special liquids and ethyl alcohol</b></p> <ol style="list-style-type: none"> <li>Regulatory documents on the use and consumption of special liquids and ethyl alcohol.</li> <li>The procedure for the consumption of special liquids and ethyl alcohol.</li> <li>Solving problems on the application of consumption rates for special liquids and ethyl alcohol in the maintenance and conservation of weapons and equipment.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Procedure for applying surcharges to fuel consumption rates when use of automotive equipment.</li> <li>Solving problems of applying surcharges to fuel consumption rates.</li> </ol>
16	Practical session	3	2	1	<p><b>Class 6. Application of consumption rates of fuels, lubricants and special liquids in the operation, maintenance and upkeep of weapons and military equipment of the Armed Forces branches and logistics</b></p> <ol style="list-style-type: none"> <li>Methodology for calculating fuel and lubricants consumption in the operation, maintenance and upkeep of weapons and military equipment of the Armed Forces branches and logistics.</li> <li>Procedure for issuing a waybill, a unit work sheet and writing off fuel and lubricants from the accounting records.</li> <li>Ways to reduce fuel and lubricant consumption rates.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Procedure for issuing fuel, lubricants and special liquids for maintenance, conservation and seasonal maintenance.</li> <li>Procedure for writing off fuel, lubricants and special liquids for maintenance, conservation and seasonal maintenance.</li> </ol>
<b>Total for the topic</b>		<b>17</b>	<b>12</b>	<b>5</b>	

Assessment activities	2	2		Credit	
<b>Topic 4. Organising the provision of fuel and equipment from different sources and different types of transport</b>					
18	Lecture	4	2	2	<p><b>Class 1: Types of fuel stocks, maintenance standards and accumulation procedure</b></p> <ol style="list-style-type: none"> <li>Types of stocks, norms and procedures for maintaining fuel and fuel service equipment.</li> <li>Guidance documents on maintenance, accumulation, and their practical application.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Types of stocks, norms and procedures for maintaining fuel and fuel service equipment.</li> </ol>
19	Lecture	2	2		<p><b>Class 2. Provision of fuel and equipment from various sources</b></p> <ol style="list-style-type: none"> <li>The organisation and procedure for obtaining fuel and technical means from the warehouses of the Armed Forces and military units.</li> <li>Obtaining fuel and technical equipment from Ukrainian economic entities.</li> </ol>
20	Practical session	3	2	1	<p><b>Class 3, Accounting transactions when receiving fuel and equipment from the MTC and other military units</b></p> <ol style="list-style-type: none"> <li>Documentation of the receipt of fuel and technical means from the MTC.</li> <li>Documentation of the receipt of fuel and equipment from another military unit.</li> <li>Making entries in the accounting books.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Documentation of the receipt of fuel and equipment from another military unit.</li> <li>Making entries in the accounting books.</li> </ol>
21	Group session	2	2		<p><b>Class 4. Accounting transactions when receiving technical means of fuel service from the approving authority and putting it into operation</b></p> <ol style="list-style-type: none"> <li>Documentation of received fuel service equipment from the approving authority.</li> <li>Documentation of the issuance of technical means of the fuel service to the units.</li> <li>Making entries in the accounting books.</li> </ol>
22	Practical session	2	2		<p><b>Class 5. Organisation and documentation of operations for the supply of fuel and technical means of the fuel service of military units</b></p> <ol style="list-style-type: none"> <li>Procedure for requesting and receiving, accounting for and putting into operation equipment and fuel.</li> <li>Documentation of the receipt and issuance of technical means of fuel service.</li> </ol>
23	Group session	2	2	2	<p><b>Class 6. Documentation of fuel and technical means received by a military unit by rail</b></p> <ol style="list-style-type: none"> <li>Documentation of fuel and technical equipment delivered to the military unit by rail.</li> <li>Making entries in the accounting book.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Procedure for receiving fuel and technical equipment delivered to a military unit by rail.</li> </ol>

24	Practical session	3	2	1	<p><b>Class 7. Acceptance of material resources of the fuel service that arrived at the military unit by rail with deviations from the data in the accompanying documents.</b></p> <ol style="list-style-type: none"> <li>1. Peculiarities of acceptance of material means of fuel service received by a military unit with deviations in quantity.</li> <li>2. Peculiarities of acceptance of fuel service materials received by a military unit with deviations in quality.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Documentation of material resources of the fuel service received by the military unit with deviations in quantity.</li> <li>2. Documentation of fuel service supplies received by the military unit with quality deviations.</li> </ol>
25	Practical session	2	2		<p><b>Class 8. Procedure for procurement of material resources through tender procedures.</b></p> <ol style="list-style-type: none"> <li>1. Organising the preparation of tender purchases for fuel service in a military unit.</li> <li>2. Conducting tender purchases and posting of material assets.</li> </ol>
<b>Total for the topic</b>		<b>24</b>	<b>18</b>	<b>6</b>	
<b>Topic 5. Organisation of accounting of material means of fuel service in a military unit.</b>					
26	Lecture	3	2	1	<p><b>Class 1 Organising the accounting of material assets of the fuel service in a military unit</b></p> <ol style="list-style-type: none"> <li>1. Organisation of accounting of material assets of the fuel service.</li> <li>2. Procedure for preparation, execution and maintenance of accounting documents.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Accounting of material means of fuel service in a military unit.</li> <li>2. The procedure for preparing, executing and maintaining accounting documents.</li> </ol>
27	Group session	3	2	1	<p><b>Class 2: Forms and procedure for applying fuel service accounting documents</b></p> <ol style="list-style-type: none"> <li>3. Types and forms of accounting documents used in the fuel service's record keeping.</li> <li>4. Types and forms of accounting documents used at the fuel service warehouse.</li> <li>5. Types and forms of accounting documents used in the fuel service unit.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Accounting documents used in the record keeping of the fuel service of a military unit.</li> <li>2. Accounting documents used at the fuel service warehouse of a military unit.</li> </ol>
<b>Total for the topic</b>		<b>6</b>	<b>4</b>	<b>2</b>	
<b>Topic 6. Documentation of business transactions related to the fuel service of a military unit</b>					
28	Lecture	2	2		<p><b>Class 1 Documentation of fuel service inventory</b></p> <ol style="list-style-type: none"> <li>1. Procedure for drafting, processing and processing documents.</li> <li>2. Documentation of the acceptance (receipt) of military property.</li> </ol>

29	Practical session	3	2	1	<p><b>Class 2: Complex task. Task 1 Keeping records of fuel in service of a military unit.</b></p> <p>1. Studying a complex problem. 2. Making initial entries in the accounting books.</p> <p><i>Independent work.</i></p> <p>1. Procedure for drafting, processing and processing documents.</p>
30	Practical session	3	2	1	<p><b>Class 3: Complex task. Task 2. Organising and documenting the receipt of fuel from the approving authority and the supplier</b></p> <p>1. Documentation of receipt of fuel from the warehouse of another unit (supplier). 2. Documentation of the receipt of fuel from the vehicle's central storage facility. 3. Documentation of receipt of strict reporting forms.</p> <p><i>Independent work.</i></p> <p>1. Documentation of receipt of strict reporting forms.</p>
31	Group session	2	2		<p><b>Class 4. Final lesson on the topic "Organisation of accounting of material means of fuel service in a military unit".</b></p>
32	Practical session	6	2	4	<p><b>Class 5. Complex task. Task 3. Documentary operations for the reception, storage and delivery of technical means of fuel service</b></p> <p>1. The main provisions and requirements of the guidelines for documenting the operation of receiving, storing and issuing technical equipment to units from the warehouse. 2. Arrange for documentation of acceptance, storage and technical means of fuel service from the supplier.</p> <p><i>Independent work.</i></p> <p>1. Documentary operations for the receipt, storage and delivery of fuel service vehicles</p>
<b>Total for the topic</b>		<b>18</b>	<b>12</b>	<b>6</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Topic 7. Reporting and control of economic activities of the fuel service in a military unit</b>					
34	Lecture	2	2		<p><b>Class 1: Reporting on the fuel service of a military unit</b></p> <p>1. Reporting, its purpose and requirements. 2. Characteristics and procedure for preparing fuel service reporting documents.</p>
35	Practical session	2	2		<p><b>Class 2. Composition, purpose, and procedure for preparing the main reporting documents for the fuel service</b></p> <p>1. Inputs, sequence and work undertaken prior to the preparation of relevant reports and communications. 2. Preparation of reports and statements on the availability and movement of fuels and lubricants and technical equipment for the month, quarter, and year.</p>

36	Lecture	2	2		<b>Class 3. The work of the internal audit committee to review the business activities of the fuel service</b> 1. Withdrawal of fuel service balances. 2. Documentation of the withdrawal of balances.
37	Group session	2	2		<b>Class 4. Organisation of internal control of economic activity of the fuel service of a military unit</b> 1. Internal control standards. 2. Organisation of internal control of a military unit.
38	Practical session	2	2		<b>Class 5. Documenting the results of controlling the economic activities of the fuel service</b> 1. The procedure for conducting an inventory of military property of the fuel service and documenting the results... 2. The procedure for conducting an audit of the fuel service's business activities and documenting the results.
<b>Total for the topic</b>		<b>18</b>	<b>18</b>	<b>-</b>	
<b>Topic 8: Planning the provision of fuel and technical means of fuel service in peacetime</b>					
39	Lecture	4	2	2	<b>Class 1: Planning the provision of a military unit with fuel and technical means of fuel service in peacetime .</b> 1. The system and organisation of planning for the provision of fuel and technical means of fuel service in peacetime. 2. Organisation of planning for the supply of fuel and technical means of fuel service in peacetime. 3. Requirements of the guiding documents on the organisation of planning for the provision of fuel and technical means of the fuel service in peacetime. <i>Independent work.</i> 1. Requirements of the guiding documents on the organisation of planning for the provision of fuel and technical means of the fuel service in peacetime.
40	Lecture	5	2	3	<b>Class 2: Planning fuel and equipment requirements for a year for a military unit of the Army</b> 1. Determine the annual petrol and diesel fuel requirements. 2. Determining the need for technical means of service. <i>Independent work.</i> 1. Plan for spending limits. 2. A plan for updating long-term storage stocks. 3. Plan for conducting analyses of long-term storage fuel. 4. Fuel supply plan. 5. Plan for providing technical means.

41	Lecture	5	2	3	<p><b>Class 3: Planning the economic activity of the fuel service of a military unit.</b></p> <ol style="list-style-type: none"> <li>1. The meaning and general procedure of fuel life cycle planning.</li> <li>2. Types of economic plans for the fuel service of a military unit, their forms, content and procedure for drawing up.</li> <li>3. Peculiarities of planning economic activities in a military unit.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Peculiarities of planning the economic activity of the fuel service of a military unit .</li> </ol>
42	Practical session	5	2	3	<p><b>Class 4. Drawing up work plans for the head of the fuel service of a military unit.</b></p> <ol style="list-style-type: none"> <li>1. Compile a list of fuel maintenance activities to be included in the monthly work plan.</li> <li>2. A complex work plan for the head of the fuel service of a military unit.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. A complex work plan for the head of the fuel service of a military unit.</li> </ol>
<b>Total for the topic</b>		<b>19</b>	<b>8</b>	<b>11</b>	
<b>Topic 9: Combat readiness and mobilisation work in the service of the military unit.</b>					
43	Lecture	2	2		<p><b>Class 1 Combat readiness of the military unit's fuel service</b></p> <ol style="list-style-type: none"> <li>1. Activities of the chief of the fuel service of a military unit to maintain the service in combat readiness.</li> <li>2. Activities carried out in peacetime by the fuel service to maintain high combat readiness of a military unit.</li> </ol>
44	Practical session	2	2		<p><b>Class 2. Provision of a military unit with material means of service fuel for wartime.</b></p> <ol style="list-style-type: none"> <li>1. General provisions on the provision of wartime fuel to the service with property.</li> <li>2. Planning the supply of fuel and technical equipment for a military unit in wartime.</li> </ol>
45	Practical session	6	2	4	<p><b>Class 3. Providing a military unit with material means of fuel service in various types of combat operations.</b></p> <ol style="list-style-type: none"> <li>1. Providing a military unit with material resources for the fuel service in preparation for and during the march.</li> <li>2. Providing a military unit with material means of the fuel service during the offensive and defensive operations.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Providing a military unit with material resources for the fuel service in preparation for a march.</li> <li>2. Developing a plan to provide fuel for a military unit on the march.</li> <li>3. Developing calculations for the organisation of refuelling of vehicles on the march.</li> <li>4. Developing proposals and reports on fuel services.</li> </ol>

46	Practical session	5	2	3	<p><b>Class 4. Liability of persons for damage caused to the state. Inspector's certificate.</b></p> <ol style="list-style-type: none"> <li>Types of liability.</li> <li>Determining the amount of damage caused.</li> <li>Inspection certificate. The procedure for requesting and issuing an inspection certificate.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Material liability of military personnel.</li> <li>The procedure for writing off the damage caused.</li> <li>Write-off of losses at the expense of the guilty parties.</li> <li>Write-off of losses based on an inspection certificate.</li> </ol>
<b>Total for the topic</b>		<b>13</b>	<b>6</b>	<b>7</b>	
<b>Topic 10. Control and audit work. Acceptance and delivery of cases and the position of the chief of the fuel service of a military unit, institution</b>					
47	Lecture	2	2		<p><b>Class 1: Organisation of control and audit work on fuel service in a military unit.</b></p> <ol style="list-style-type: none"> <li>Organisation of control and audit work in the fuel service.</li> <li>Organise checks on the qualitative and quantitative condition of material assets.</li> </ol>
48	Practical session	4	2	2	<p><b>Class 2: Conducting and documenting inventories, inspections and audits.</b></p> <ol style="list-style-type: none"> <li>Checking the actual availability of the quality of the fuel service property.</li> <li>Documentation of inventory, inspections and audits.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Implementation of proposals based on the results of inventories, inspections and audits.</li> </ol>
49	Practical session	3	2	1	<p><b>Class 3: Organisation and methodology of accepting cases and the position of the head of the fuel service of a military unit (institution).</b></p> <ol style="list-style-type: none"> <li>General provisions for acceptance and surrender of the position of chief of the fuel service of a military unit of a formation).</li> <li>Organisation and methodology of accepting cases and the position of the head of the fuel service.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>Organisation and methodology for accepting cases and the position of the head of the fuel service</li> </ol>
<b>Total for the topic</b>		<b>12</b>	<b>10</b>	<b>2</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Examination</b>
<b>Total for the educational component</b>		<b>162</b>	<b>108</b>	<b>54</b>	

#### 4.21 VC 05 "USE OF TECHNICAL MEANS OF FUEL SERVICE"

##### **General objective of the educational programme component:**

to provide knowledge about the tactical level officer of the Armed Forces of Ukraine for the provision of units (units, formations) with rocket fuel, fuel and lubricants and is able to: organise the operation of technical means of the fuel service in peacetime and wartime; their reception, storage, as well as maintaining them in proper technical condition; develop abilities in organising the provision of technical means in peacetime, wartime and in a special period; form practical skills in clarifying the task, studying the situation, making a decision of the head of the service

##### **As a result of studying the discipline, the student should**

*to know:*

organise the operation and maintenance of technical means of the current and long-term storage;

possess the skills of a service specialist in the use of technical means of the service in peacetime and wartime;

understand the nomenclature of fuel service equipment;

have the skills to perform technological operations on fuel service vehicles;

*be able to:*

work on fuel service vehicles;

develop planning documents for the operation and maintenance of service vehicles;

conduct tactical and formation exercises with fuel service units, comply with regulations, and use technical means to ensure quality training of unit personnel.

##### **Organisational and methodological guidelines:**

The methodology of teaching the educational component is based on the basic principles of didactics (theory of reasoning and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

Frontal learning, when all students perform the same task at the same time under the supervision of a teacher;

group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;

training;

situational and cognitive.

A verbal and visual method in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied in order for students to gain new knowledge and form the appropriate imagination.

The training (reproductive) method consists in performing complex actions in accordance with an algorithm (pre-established procedure) determined by the training leader to develop the necessary skills and ensure the coherence of military organisational structures.

Situational and cognitive - in reviewing and discussing real (probable) actions, learning about the experience of commanding troops (forces) in military conflicts and developing skills in information and analytical activities.

The above methods provide students with knowledge, skills, and abilities, but to develop their creative abilities, the class leader should use problem-based learning methods.

Problem-based teaching is when the class leader poses a problem to the students, solves it himself, but at the same time shows the ways of solving it, reveals the course of his thought. The immediate result of problem-based teaching should be that the student learns the method and logic of solving a particular problem, but not yet the ability to apply them independently. This method teaches students how to search for knowledge and helps them develop creative thinking skills.

The search (heuristic) method serves the purpose of gradually bringing students closer to solving problems on their own by first teaching them how to perform certain elements of the solution. It is used during Group Sessions when the method of finding the optimal solution is determined by the class leader, but the solution is found by the trainee.

Problem-based methods provide a deep assimilation of knowledge at the level of its creative application, mastery of creative thinking methods, and practical experience.

## **Logistics:**

Classes should be held in specialised classrooms, which should be equipped with personal electronic computers at the rate of one workstation per two students and at the training centre's training ground. It is mandatory to use technical training aids during the training sessions.

### **Information and methodological support:**

1. On the Statute of the Internal Service of the Armed Forces of Ukraine: Law of 24.03.1999 №548-XIV // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Date of update: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed 28.07.2020).

2. Resolution of the Cabinet of Ministers of Ukraine of 05.08.2020 No. 686 "On Approval of the Norms of Losses of Oil Products during their Acceptance, Storage, Release, Transshipment and Transportation" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 30.08.2020).

3. Resolution of the Cabinet of Ministers of 28.07.06 No. 1041-012 "On Approval of the Procedure for Creation, Maintenance and Use of Fixed Stocks of Arms, Military Equipment, Ammunition and Other Material Resources in the Armed Forces of Ukraine".

4. Resolution of the Cabinet of Ministers of Ukraine of 03.05.2000 No. 748 "On Approval of the Regulation on Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 28.07.2020).

5. Resolution of the Cabinet of Ministers of Ukraine of 04.08.2000 No. 1225 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/1\\_doc2.nsf/link1/KP001225.html](http://search.ligazakon.ua/1_doc2.nsf/link1/KP001225.html) (accessed 28.07.2020).

6. Resolution of the Cabinet of Ministers of Ukraine of 29.05.1998 No. 759 (as amended) "On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/1\\_doc2.nsf/link1/KP980759.html](http://search.ligazakon.ua/1_doc2.nsf/link1/KP980759.html) (accessed 28.07.2020).

7. Law of Ukraine "On the Material Liability of Servicemen and Equated Persons for Damage Caused to the State" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021 URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed 08.08.2021).

8. Resolution of the Cabinet of Ministers of Ukraine of 15.07.2020 No. 604 "On Approval of the List of Arms, Weapons and Ammunition, the Shortage or Theft of which is Compensated by the Perpetrators in Multiple Ratio to their Value" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed 08.08.2021).

9. Order No. 112 of the Deputy Minister of Defence of Ukraine - Chief of the Logistics of the Armed Forces of 12.11.1998 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine"

10. Order of the Ministry of Finance of Ukraine 17.06.2015 No. 572 "On Approval of Standard Forms for Reflecting Inventory Results by Budgetary Institutions".

11. Order of the Minister of Defence of Ukraine of 16.07.1997 No. 300 "On Approval of the Regulation on Military Economy of the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed 28.07.2020).

12. On Approval of the Instruction on Accounting for Military Property in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine 17.08.2017 No. 440 // Database "Legislation of Ukraine" / VR of Ukraine. Date of update: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed 28.07.2020).

13. Order of the Minister of Defence of Ukraine "On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service" of 29.03.2021 No. 81 // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed 10.08.2021).

14. Order of the Ministry of Defence of Ukraine of 06.01.1999 No. 01 "On Establishing Standards for the Consumption of Fuel, Oils, Greases and Special Liquids in the Operation, Repair and Preservation of Military Equipment and Arms of the Armed Forces of Ukraine".

15. Order of the Ministry of Defence of Ukraine of 13.10.2009 No. 513 "On Approval of Amendments to the Order of the Minister of Defence of Ukraine of 06.01.99 No. 01".

16. Order of the Ministry of Defence of Ukraine of 09.11.2016 No. 596 "On Approval of the Instruction on Organisation of Transfer of Weapons, Military Equipment and Property for Repair".

17. Order of the Ministry of Defence of Ukraine of 11.06.14 No. 374dsk "On Approval of the List of Kits for Provision of Service Equipment and Property of the Fuel and Lubricants Service to the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime".

18. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 23.05.00 No. 60 "On the introduction of the Instruction on documentary audit (inspection) of the fuel service of a military unit, warehouse, base and fuel supply centre".

19. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 11.04.1994 No. 7 "On the introduction of the Instruction on the handling of toxic technical liquids".

20. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997 No. 45 "On the organisation of operation and inspection of the condition of technical means of the fuel service of the Armed Forces of Ukraine".

21. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 12.11.1998 No. 112 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine".

22. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 31.08.2020 No. 85 "On Approval and Implementation of the Methodological Recommendations for Determining the Need for Arms and Military Equipment, Material and Technical Resources by Class of Supply, Land Plots and the Deployment of Troops (Forces) Required for Preparing and Performing Tasks to Repel Armed Aggression".

23. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30.12.2016 "On Approval of the Instruction on Establishing the Service Life of Technical Facilities for Fuel and Lubricants Service".

24. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 30.12.2016 No. 509, "Guidelines for the organisation of the work of fuel supply centres, bases, fuel depots of the Armed Forces of Ukraine".

25. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 25.04.2018 No. 170 "On the Procedure for the Preparation of Operational (Combat) Documents".

26. Order of the Chief of the General Staff of the Armed Forces of Ukraine 29.08.2016 No. 340 "On Approval of the Instruction on Organisation of Internal Control in the Armed Forces of Ukraine".

27. Order of the Chief of the General Staff - Commander-in-Chief of the Armed Forces of Ukraine of 12.04.2010 No. 55 "On Approval and Enactment of the Table of Urgent Reports on Operational and Logistical Support of Troops (Forces) for Peacetime" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: [http://catalog.nuou.org.ua/index.php?option=com\\_sobipro&pid=128&sid=315183:book-81271&Itemid=0](http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0) (accessed 28.07.2020).

28. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 of 01 January 2024 "On Approval of the Regulation on Provision of Property to the Fuel and Lubricants Service in the Armed Forces of Ukraine".

29. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 "On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Liquids in the Armed Forces of Ukraine".

30. Order of the Commander-in-Chief of the Armed Forces of Ukraine 13.07.2023 No. 196 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Aviation Equipment in the Armed Forces of Ukraine".

31. Order of the Commander-in-Chief of the Armed Forces of Ukraine 14.12.2020 No. 222 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Ships, Boats (Vessels) of the Navy in the Armed Forces of Ukraine".

32. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 15.04.2023 "On the establishment of year-round use of low-freezing coolants in weapons and military equipment of the Armed Forces of Ukraine".

### Titles of topics and distribution of study time by type of study session

№ s/n	Types of training classes, control events	Total hours	of which.		Semester numbers, section titles, topics classes, educational issues.
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: The use of motor pumping units for fuel.</b>					
1	Lecture	3	2	1	<b>Class 1: Requirements for motorised fuel pumping systems.</b> 1. Requirements for motorised fuel pumps. 2. Classification of motor pumping units for fuel by their purpose. <i>Independent work.</i> 1. TTC, technological scheme of MNUG-20.
2	Group session	2	2		<b>Class 2: Use of the MNUG-20 motor pump unit in everyday activities.</b> 1. Purpose and principle of operation of MNUG-20 units. 2. Deploying and preparing the MNUG-20 for operation. 3. Control over the operation of MNUG-20. 4. 4. Roll-up and maintenance after work.
3	Practical session	2	2		<b>Class 3: Use of the MNUG-20 motor pump unit in everyday activities.</b> 1. Purpose and principle of operation of MNUG-20 units. 2. Deploying and preparing the MNUG-20 for operation. 3. Control over the operation of MNUG-20. 4. 4. Roll-up and maintenance after work.
<b>Total for the topic</b>		<b>5</b>	<b>4</b>	<b>1</b>	
<b>Topic 2. The use of motorised oil pumps.</b>					

4	Lecture	3	2	1	<p><b>Class 1: Classification of motorised oil pumps and requirements for their use.</b></p> <p>1. Requirements for motorised oil pumps. 2. Classification of motorised oil pumps.</p> <p><i>Independent work.</i></p> <p>1. 1. Process flow diagram of MNUM-14.</p>
<b>Total for the topic</b>		<b>3</b>	<b>2</b>	<b>1</b>	
<b>Topic 3. Fuel pumping stations and their application.</b>					
5	Lecture	2	2		<p><b>Class 1: Classification of pumping equipment.</b></p> <p>1. Requirements for technical equipment. 2. Layout of fuel pumping stations.</p>
6	Group session	3	2	1	<p><b>Class 2: Purpose and equipment of the UGS-160 fuel pumping station.</b></p> <p>1. Purpose and technical characteristics of UGS-160. 2. Design and operation of components and assemblies.</p> <p><i>Independent work.</i></p> <p>1: Process flow diagram of the UGS-160 pumping station</p>
7	Practical session	3	2	1	<p><b>Class 3: Design and operation of UGS-160 components and assemblies.</b></p> <p>1. General design of the UGS-160 fuel pumping station. 2. The main units of the station and the principle of their operation.</p> <p><i>Independent work.</i></p> <p>1. Purpose and principle of operation of the main units and assemblies of UGS-160.</p>
8	Practical session	3	2	1	<p><b>Class 4. Procedure for preparing UGS-160 for operation</b></p> <p>1. Preparing the UGS-160 pumping station for operation. 2. Switch UGS-160 to the pumping mode.</p> <p><i>Independent work.</i></p> <p>1. Purpose and principle of operation of the main components and assemblies.</p>
9	Practical session	3	4	1	<p><b>Class 5. The procedure for using UGS-160.</b></p> <p>1. Putting UGS-160 into pumping mode 2. Control over the operation of UGS-160. 3. 3. Roll-up and maintenance after work.</p> <p><i>Independent work.</i></p> <p>Maintenance of UGS-160 during operation. 1. Maintenance of UGS-160 after operation.</p>

10	Group session	3	2	1	<p><b>Class 6. Purpose and equipment of the UGS-240 fuel pumping station.</b></p> <p>1. Purpose and technical characteristics of UGS-240. 2. Design and operation of UGS units and assemblies. <i>Independent work.</i></p> <p>1. Technological scheme of UGS-240</p>
11	Group session	4	2	2	<p><b>Class 7. Design and principle of operation of UGS-240 units and assemblies.</b></p> <p>1. General design of the UGS-240 fuel pumping station. 2. The main units of the station and the principle of their operation. <i>Independent work.</i></p> <p>1. Design of the UGS-240 fuel pumping station.</p>
12	Practical session	5	2	3	<p><b>Class 8. Procedure for preparing UGS-240 for operation</b></p> <p>1. Preparing the UGS-240 pumping station for operation. 2. Switch UGS-240 to the pumping mode. <i>Independent work.</i></p> <p>1. Technological scheme of UGS-240</p>
13	Practical session	5	2	3	<p><b>Class 9. The procedure for using UGS-240.</b></p> <p>1. Putting UGS-240 into pumping mode 2. Control over the operation of UGS-240. 3. 3. Roll-up and maintenance after work. <i>Independent work.</i></p> <p>1. The procedure for drawing up an acceptance certificate for a fuel pumping station.</p>
<b>Total for the topic</b>		<b>35</b>	<b>22</b>	<b>13</b>	
<b>Assessment activities</b>		<b>2</b>	<b>2</b>		<b>Credit</b>
<b>Topic 4. Technical means of refuelling.</b>					
14	Lecture	3	2	1	<p><b>Class 1: Application of refuelling equipment.</b></p> <p>1. Requirements for refuelling equipment. 2. The layout of automotive fuel and oil refuelling facilities. <i>Independent work.</i></p> <p>1. The layout of automotive fuel and oil refuelling facilities.</p>
15	Group session	2	2	1	<p><b>Class 2: Purpose, equipment and principle of operation of the ATMZ-5-4320 and ATZ-9.3-260 fuel tankers.</b></p> <p>1. Technological scheme of fuel and oil filling stations. 2. Operation of fuel and oil refuellers. <i>Independent work.</i></p>

					1. Technological scheme of fuel and oil filling stations.
16	Practical session	3	2	1	<p><b>Class 3. Application of the ATMZ-5-4320 fuel and oil tanker.</b></p> <p>1. Purpose and principle of operation of ATMZ-5-4320 units.  2. Deployment and preparation for operation.  3. Control over the work.  4. 4. Roll-up and maintenance after work.</p> <p><i>Independent work.</i></p> <p>1. Purpose and principle of operation of ATZ-9,3-260 units.</p>
17	Group session	2	2		<p><b>Class 4. Application of the ATZ-9,3- 260 fuel tanker.</b></p> <p>1. Purpose and principle of operation of ATZ-9,3- 260 units.  2. Deployment and preparation for operation.  3. Control over the work.  4. 4. Roll-up and maintenance after work.</p>
18	Lecture	3	2	1	<p><b>Class 5. Individual and group refuelling techniques.</b></p> <p>1. Purpose, classification of individual and group refuelling equipment.  2. Layout of refuelling units and assemblies.</p> <p><i>Independent work.</i></p> <p>1. Flow chart of fuel dispensers.</p>
19	Practical session	2	2		<p><b>Class 6. Equipment of individual and group refuelling facilities.</b></p> <p>1. Purpose, technical characteristics and equipment of group refuelling facilities.  2. Equipment and principle of operation of components and assemblies of the CCD-14  3. Purpose, technical characteristics of individual refuelling equipment.  4. Equipment and principle of operation of KR-40 units and assemblies.</p>
20	Practical session	3	2	1	<p><b>Class 7. Equipment of mobile refuelling vehicles.</b></p> <p>1. Purpose, technical characteristics and equipment of refuelling modules  2. The procedure for transporting refuelling modules  3. Procedure for deploying and using the modules.</p> <p><i>Independent work.</i></p> <p>1. Hydraulic diagram of fuel dispensers.</p>
<b>Total for the topic</b>		<b>19</b>	<b>14</b>	<b>5</b>	
<b>Topic 5. Application of automotive fuel tanks.</b>					
21	Lecture	2	2		<p><b>Class 1: Fuel tanker AII-5,5-4320.</b></p> <p>1. Purpose, technical characteristics of AC-5.5-4320.  2. Layout of units and assemblies, principle of their operation.</p>

22	Group session	3	2	1	<p><b>Class 2. Application of tank trucks АИ-5,5-4320.</b></p> <ol style="list-style-type: none"> <li>1. Equipment and principle of operation of units and assemblies of AC-5,5-4320.</li> <li>2. Preparation for work, operation of AC-5.5-4320.</li> <li>3. 3. Dismantling and maintenance after operation of the AC-5.5-4320.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1: Process flow diagram of the tank truck AC-5.5-4320.</li> </ol>
23	Lecture	2	2	1	<p><b>Class 3: Fuel tanker truck AC-10-260, AC-12-63221</b></p> <ol style="list-style-type: none"> <li>1. Purpose, technical characteristics of AC-10-260, AC-12-63221</li> <li>2. Layout of units and assemblies, principle of their operation.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Process flow diagram of the tank truck AC-10-260.</li> </ol>
24	Practical session	2	2		<p><b>Class 4. Application of the tank truck AC-10-260.</b></p> <ol style="list-style-type: none"> <li>1. Equipment and principle of operation of AC-10-260 units and assemblies.</li> <li>2. Preparation for work, operation of the AC-10-260.</li> <li>3. 3. Dismantling and maintenance of the AC-10-260 after operation.</li> </ol>
25	Lecture	4	2	2	<p><b>Class 5. Basic principles of tanker truck operation.</b></p> <ol style="list-style-type: none"> <li>1. The concept and stages of operation of technical equipment.</li> <li>2. Requirements of the guiding documents for the organisation of the operation of technical means in peacetime.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Requirements of the guiding documents for the organisation of the operation of technical means in peacetime.</li> </ol>
26	Lecture	3	2	1	<p><b>Class 6. Reception of fuel tankers by a military unit.</b></p> <ol style="list-style-type: none"> <li>1. The work of the head of the service on the reception of technical equipment.</li> <li>2. Preparation of admission documents.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. The procedure for receiving technical equipment in a military unit.</li> <li>2. Stages of operation of technical means of fuel service.</li> </ol>
27	Practical session	3	2	1	<p><b>Class 7. Acceptance of technical means of service.</b></p> <ol style="list-style-type: none"> <li>1. Drawing up an acceptance certificate.</li> <li>2. Accounting for technical equipment for current support.</li> <li>3. Accounting for technical equipment in long-term storage.</li> <li>4. Transfer of technical equipment to military units.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Drawing up an acceptance certificate.</li> </ol>

					2. Transfer of technical means to units of the military unit.
<b>Total for the topic</b>	<b>20</b>	<b>14</b>	<b>6</b>		
<b>Topic 6. Means of repairing technical means of fuel service.</b>					
28	Lecture	5	2	3	<p><b>Class 1: Mobile repair facilities for fuel service vehicles.</b></p> <ol style="list-style-type: none"> <li>1. Purpose and requirements for mobile repair vehicles.</li> <li>2. Composition and equipment of the PRM-SG field repair workshop</li> <li>3. Terrain requirements and procedures for deploying a field repair shop.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Composition and equipment of the PRM-SG field repair workshop</li> <li>2. Terrain requirements and deployment of the field repair shop.</li> </ol>
29	Practical Session	5	2	3	<p><b>Session 2: Procedure of the PRM-SG field repair workshop</b></p> <ol style="list-style-type: none"> <li>1. Composition and equipment of the PRM-SG field repair workshop</li> <li>2. Requirements for the area where the field workshop is to be deployed</li> <li>3. The procedure for deploying a field repair shop.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Composition of the PRM-SG field repair workshop</li> <li>2. Requirements for the location of the field repair shop.</li> </ol>
30	Practical Session	5	2	3	<p><b>Class 3: The procedure for replacing the filter elements of fuel dispensers and field refuelling stations.</b></p> <ol style="list-style-type: none"> <li>1. Determine whether the filter elements need to be replaced.</li> <li>2. Replace the filters on the equipment.</li> </ol> <p><i>Independent work.</i></p> <ol style="list-style-type: none"> <li>1. Equipment of the PRM-SG field repair workshop</li> <li>2. Component equipment of the field repair shop.</li> </ol>
<b>Total for the topic</b>	<b>19</b>	<b>10</b>	<b>9</b>		
<b>Assessment activities</b>	<b>6</b>	<b>6</b>			<b>Examination</b>
<b>Total for the educational component</b>	<b>105</b>	<b>70</b>	<b>35</b>		

#### 4.22 ALL 06 " SUPPLY OF FUEL AND LUBRICANTS TO AIR AND NAVAL UNITS "

##### **General objective of the educational programme component:**

to provide knowledge on the training of a tactical-level troop (force) supply officer capable of planning and organising the provision of a military unit with fuel and lubricants, technical equipment and property in peacetime and wartime in the air and naval forces, organising and maintaining records of fuel in the military unit, documenting the movement and write-off of fuel and property;

##### **As a result of studying the discipline, the student should**

*to know:*

Understand, analyse and assess the fuel situation in daily operations and in various types of combat operations of military units of the Air Force and Navy;

know the procedure and standards for providing military units with fuel and lubricants and technical means of fuel service in peacetime and wartime;

use modern information technologies for planning, accounting and reporting on fuel services;

understand the effective ways of using the forces and means of the fuel service;

organisation and methods of conducting Tactical Exercise classes.

*be able to:*

be able to organise the acceptance, storage, receipt and issuance and accounting of material resources of the service, refuelling of weapons and military equipment in stationary and field conditions;

have the skills to perform technological operations on fuel service vehicles;

perform the functions of managing the fuel unit's service in peacetime, wartime and in a special period;

work in cooperation with the chiefs of military branches and services of the military unit in performing the tasks of the fuel service;

develop planning, administrative, reporting and other documents of the military unit's fuel service;

conduct individual training sessions with fuel service specialists, comply with regulations, use training facilities and technical equipment for quality training of personnel of the units.

##### **Organisational and methodological guidelines:**

The methodology of teaching the educational component is based on the basic principles of didactics (theory of

reasoning and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates the most appropriate combinations to achieve a certain level of learning, and determines the conditions for their most effective use.

To achieve the main learning objective, the programme provides for the following forms of learning:

frontal form of training, when all students perform the same task at the same time under the supervision of a teacher;

group form of training, when students are combined into groups (departments) depending on the staffing structure of the unit, which work in parallel;

individual form of training, when students complete tasks sequentially, one by one.

At the same time, depending on the need to achieve the levels of knowledge or skill, the teacher should use the following methods:

verbal and visual;

training;

situational and cognitive.

A verbal and visual method in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied in order for students to gain new knowledge and form the appropriate imagination.

The training (reproductive) method consists in performing complex actions in accordance with an algorithm (pre-established procedure) determined by the training leader to develop the necessary skills and ensure the coherence of military organisational structures.

Situational and cognitive - in reviewing and discussing real (probable) actions, learning about the experience of commanding troops (forces) in military conflicts and developing skills in information and analytical activities.

The above methods provide students with knowledge, skills, and abilities, but to develop their creative abilities, the class leader should use problem-based learning methods.

Problem-based teaching is when the class leader poses a problem to the students, solves it himself, but at the same time shows the ways of solving it, reveals the course of his thought. The immediate result of problem-based teaching should be that the student learns the method and logic of solving a particular problem, but not yet the ability to apply them independently. This method teaches students how to search for knowledge and helps them develop creative thinking skills.

The search (heuristic) method serves the purpose of gradually bringing students closer to solving problems on their own by first teaching them how to perform certain elements of the solution. It is used during Group Sessions when the method of finding the optimal solution is determined by the class leader, but the solution is found by the trainee.

Problem-based methods provide a deep assimilation of knowledge at the level of its creative application, mastery of creative thinking methods, and practical experience.

### **Logistics:**

Classes should be held in specialised classrooms, which should be equipped with personal computers at the rate of one workstation per two students and at the training centre's training ground. It is mandatory to use technical training aids during the training sessions.

### **Information and methodological support:**

1. On the Statute of the Internal Service of the Armed Forces of Ukraine: Law of 24.03.1999 №548-XIV // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Date of update: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed 28.07.2020).

2. Resolution of the Cabinet of Ministers of Ukraine of 05.08.2020 No. 686 "On Approval of the Norms of Losses of Oil Products during their Acceptance, Storage, Release, Transshipment and Transportation" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 30.08.2020).

3. Resolution of the Cabinet of Ministers of 28.07.06 No. 1041-012 "On Approval of the Procedure for Creation, Maintenance and Use of Fixed Stocks of Arms, Military Equipment, Ammunition and Other Material Resources in the Armed Forces of Ukraine".

4. Resolution of the Cabinet of Ministers of Ukraine of 03.05.2000 No. 748 "On Approval of the Regulation on Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed 28.07.2020).

5. Resolution of the Cabinet of Ministers of Ukraine of 04.08.2000 No. 1225 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/KP001225.html](http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html) (accessed 28.07.2020).

6. Resolution of the Cabinet of Ministers of Ukraine of 29.05.1998 No. 759 (as amended) "On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations" // Database "Legislation of Ukraine" / VR of Ukraine. URL: [http://search.ligazakon.ua/l\\_doc2.nsf/link1/KP980759.html](http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html) (accessed 28.07.2020).

7. Law of Ukraine "On the Material Liability of Servicemen and Equated Persons for Damage Caused to the State" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021 URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed 08.08.2021).
8. Resolution of the Cabinet of Ministers of Ukraine of 15.07.2020 No. 604 "On Approval of the List of Arms, Weapons and Ammunition, the Shortage or Theft of which is Compensated by the Perpetrators in Multiple Ratio to their Value" / VR of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed 08.08.2021).
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17. Order of the Ministry of Defence of Ukraine of 06.01.1999 No. 01 "On Establishing Standards for the Consumption of Fuel, Oils, Greases and Special Liquids in the Operation, Repair and Preservation of Military Equipment and Arms of the Armed Forces of Ukraine".

18. Order of the Ministry of Defence of Ukraine of 13.10.2009 No. 513 "On Approval of Amendments to the Order of the Minister of Defence of Ukraine of 06.01.99 No. 01".

19. Order of the Ministry of Defence of Ukraine of 09.11.2016 No. 596 "On Approval of the Instruction on Organisation of Transfer of Weapons, Military Equipment and Property for Repair".

20. Order of the Ministry of Defence of Ukraine of 11.06.14 No. 374dsk "On Approval of the List of Kits for Provision of Service Equipment and Property of the Fuel and Lubricants Service to the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime".

21. Joint Order of the Ministry of Defence of Ukraine with other ministries of 17.12.16 No. 791 "On Approval of the Procedure for Payments for Received Fuel and Lubricants and Food Products between Entities Directly Engaged in the Fight Against Terrorism in the Area of Anti-Terrorist Operation-".

22. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 11.04.1994 No. 7 "On the introduction of the Instruction on the handling of toxic technical liquids".

23. Order of the Deputy MoD of Ukraine for Logistics of 02.02.1994, no. 24. "On the introduction of the Guidelines for the handling of ethyl alcohol".

24. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997 No. 45 "On the organisation of operation and inspection of the condition of technical means of the fuel service of the Armed Forces of Ukraine".

25. Order of the Deputy Minister of Defence of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 30.05.1997, no. 46 "On the organisation of mass distribution of fuel to motor vehicles".

26. Order of the Deputy MoD of Ukraine for Logistics - NT of the Armed Forces of Ukraine of 12.11.1998 No. 112 "On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine".

27. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 31.08.2020 No. 85 "On Approval and Implementation of the Methodological Recommendations for Determining the Need for Arms and Military Equipment, Material and Technical Resources by Class of Supply, Land Plots and the Deployment of Troops (Forces) Required for Preparing and Performing Tasks to Repel Armed Aggression".

28. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30.12.2016 "On Approval of the Instruction on Establishing the Service Life of Technical Facilities for Fuel and Lubricants Service".

29. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 30.12.2016 No. 509, "Guidelines for the organisation of the work of fuel supply centres, bases, fuel depots of the Armed Forces of Ukraine".

30. Order of the Chief of the General Staff - Commander-in-Chief of the Armed Forces of Ukraine of 12.04.2010 No. 55 "On Approval and Enactment of the Table of Urgent Reports on Operational and Logistical Support of Troops (Forces) for Peacetime" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: [http://catalog.nuou.org.ua/index.php?option=com\\_sobipro&pid=128&sid=315183:book-81271&Itemid=0](http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0) (accessed 28.07.2020).

31. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 01.01.2024 "On Approval of the Regulation on Provision of Property to the Fuel and Lubricants Service in the Armed Forces of Ukraine".

32. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 "On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Liquids in the Armed Forces of Ukraine".

33. Order of the Commander-in-Chief of the Armed Forces of Ukraine 13.07.2023 No. 196 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Aviation Equipment in the Armed Forces of Ukraine".

34. Order of the Commander-in-Chief of the Armed Forces of Ukraine 14.12.2020 No. 222 "On Approval of the Standards for the Consumption of Fuel and Lubricants during the Operation of Ships, Boats (Vessels) of the Navy in the Armed Forces of Ukraine".

35. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 15.04.2023 "On the establishment of year-round use of low-freezing coolants in weapons and military equipment of the Armed Forces of Ukraine".

36. Guidelines for the storage of technical means of fuel service. Kyiv: Varta, 2000.

37. "Use of Fuel on Military Equipment", Military Publishing House, 1994.

## Titles of topics and distribution of study time by type of study session

№ s/n	Types of training sessions, Assessment activities	Total hours	Among them.		Topic title and study questions
			Audit hours	Independent work	
1	2	3	4	5	6
<b>Topic 1: Organisations of fuel and lubricants supply and technical means of service in the Air Force and Navy</b>					
1	Lecture	4	2	2	<p><b>Class 1: Organisation of service fuel supply in the Air Force and Navy.</b></p> <p>1. Organisations for the supply of fuel and lubricants and technical means of the Air Force service.</p> <p>2. Organisations for the provision of fuel and lubricants and technical means for the Navy service.</p> <p><i>Independent work.</i></p> <p>1. Organisational structure for the service of fuels used in the Air Force.</p> <p>2. Organisational structure for the service of fuels used in the Navy.</p>
2	Group session	4	2	2	<p><b>Class 2: Planning the provision of fuel and lubricants and technical means of service in the Air Force and Navy.</b></p> <p>1. Determining the annual fuel requirement for an Air Force unit.</p> <p>2. Determining the annual fuel requirement for a military unit of the Navy.</p> <p><i>Independent work.</i></p> <p>1. Determining the weight of refuelling for an Air Force unit.</p> <p>2. Determining the weight of refuelling for a military unit of the Navy.</p>
3	Practical session	4	2	2	<p><b>Class 3: Peculiarities of fuel accounting and write-off in the Air Force and Navy.</b></p> <p>1. Peculiarities of fuel accounting and write-off in the Air Force.</p> <p>2. Specifics of fuel accounting and write-off in the Navy.</p> <p>3.</p> <p><i>Independent work.</i></p> <p>1. The procedure for refuelling and writing off fuel in the Air Force.</p>

					2. The procedure for refuelling and writing off fuel in the Navy.
4	Practical session	4	4		<b>Class 4. Standardisation of fuel consumption during operation.</b> 1. Rationing of fuel consumption in ship operations. 2. Regulation of fuel consumption in the operation of aircraft.
<b>Total for the topic</b>		<b>18</b>	<b>10</b>	<b>6</b>	
<b>Topic 2. Application and quality control of fuels and lubricants in the Air Force.</b>					
5	Lecture	5	2	3	<b>Class 1: Peculiarities of gas turbine engine operation and quality requirements for jet fuels.</b> 1. Features of jet and turbofan engines. 2. Peculiarities of jet fuels use at different flight altitudes and loads on the aircraft engine. <i>Independent work.</i> 1. Key indicators of jet fuel quality.
6	Group session	2	2		<b>Class 2: Peculiarities of using aviation fuels.</b> 1. Compatibility of civil and military aviation fuels. 2. The procedure for the interchangeability of aviation fuels.
7	Practical session	5	2	3	<b>Class 3: Aviation fuels used by NATO countries</b> 1. NATO aviation fuel classification and requirements. 2. Features of control over the use of aviation fuels. <i>Independent work.</i> 1. Types, composition and use of jet fuels for subsonic aviation.
8	Practical session	5	2	3	<b>Class 4. Features of aircraft lubrication systems.</b> 1. Aircraft engine lubrication system. 2. Hydraulic systems of aircraft. <i>Independent work.</i> 1. Quality requirements for jet fuels.
9	Group session	2	2		<b>Class 5. Oils and greases used in aviation.</b> 1. Motor oils. 2. Transmission oils. 3. Oil mixtures.
10	Practical session	2	2		<b>Class 6. Special fluids used in aircraft.</b> 1. Anti-icing liquids. 2. Hydraulic fluids.
11	Practical session	2	2		<b>Class 7. Organisation of quality control at airfield fuel depots.</b> 1. Organising quality control when receiving fuel at the warehouse.

					2. Organisation of quality control when issuing fuel before a flight.
12	Group session	2	2		<b>Class 8. Organisation of quality control during training and combat flights.</b> 1. Fuel quality control during training flights. 2. Features of quality control during combat flights.
<b>Total for the topic</b>		<b>39</b>	<b>16</b>	<b>9</b>	
<b>Topic 3. Application of technical means of fuel service in the Air Force and Navy.</b>					
13	Lecture	2	2		<b>Class 1: Technical means of fuel service of aviation technical units.</b> 1. Features of the structure and use of technical means of fuel service in aviation units. 2. The main disadvantages in the structure of technical means of the aviation fuel service.
14	Lecture	3	2	1	<b>Class 2: Structure of technical means of fuel service in the Air Force.</b> 1. General structure of the Air Force fuel service facilities. 2. Features of the structure and use of technical equipment in aviation units. <i>Independent work:</i> The general structure of the Air Force fuel service equipment.
15	Group session	5	4	1	<b>Class 3: Vehicles for refuelling and transporting fuel of aircraft technical units of the aircraft.</b> 1. Basic requirements for aviation units' fuel and oil refuellers. 2. Structure and technical characteristics of aviation units' fuel and oil refuellers. <i>Independent work.</i> 1. Purpose of fuel trucks and their use in aviation units. 2. The general structure of fuel tankers for refuelling aircraft.
16	Practical session	7	4	3	<b>Class 4. Application of fuel tankers TZA-7.5-5334, MZ-66.</b> 1. Purpose and structure of TZA-7.5-5334, MZ-66. 2. Preparation for use of TZA-7.5-5334, MZ-66. 3. Putting TZA-7.5-5334, MZ-66 into operation and monitoring its operation. 4. 4. Roll-up and maintenance after work. <i>Independent work.</i> 1. Purpose of water-alcohol refuellers and their use on aircraft. 2. Purpose of speciality fluid refuellers and their use on aircraft.
<b>Total for the topic</b>		<b>19</b>	<b>14</b>	<b>5</b>	
<b>Assessment activities</b>		<b>6</b>	<b>6</b>		<b>Credit</b>
<b>Total for the educational component</b>		<b>90</b>	<b>60</b>	<b>30</b>	

