

MINISTRY OF DEFENCE OF UKRAINE

MILITARY ACADEMY (ODESA)

**EDUCATIONAL PROGRAMME OF THE COURSE
OF PROFESSIONAL MILITARY EDUCATION**

**TACTICAL LEVEL COMMAND COURSE
MANAGEMENT OF THE OPERATION OF GROUND-BASED WEAPONS
SYSTEMS, CLOSE COMBAT AND RECONNAISSANCE ASSETS,
*L-1C (MOGBWSCCRA)***

according to military occupational specialty 707100, 707200, 707300 "management of operation of ground-based weapons systems, close combat and reconnaissance assets"

APPROVED

by the Academic Council of the Military Academy
(Odesa)

(minutes of "____" ____ 20__ year №____)

Chairman of the Academic Council
of the Military Academy (Odesa)

Major General

Andrii KOVALCHUK

Put into effect

by the order of the Chief of the Military Academy
(Odesa) dated "____" ____ 20__ year №____

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APPROVAL SHEET**OF THE EDUCATIONAL PROGRAMME OF THE COURSE
OF PROFESSIONAL MILITARY EDUCATION****TACTICAL LEVEL COMMAND COURSE
MANAGEMENT OF THE OPERATION OF GROUND-BASED WEAPONS
SYSTEMS, CLOSE COMBAT AND RECONNAISSANCE EQUIPMENT,
L-1C (MOGBWSCCRA)**

according to military occupational specialty 707100, 707200, 707300 "management of operation of ground-based weapons systems, close combat and reconnaissance assets"

APPROVED

Director of the Department of Military
Education and Science of the Ministry of
of Defence of Ukraine

Volodymyr MIRNENKO
_____ 20

APPROVED

Chief of the Central Directorate of
Military Education and Science of the
General Staff of the Armed Forces of
Ukraine
colonel

Oleh PAVLOVSKYI
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APPROVED BY

Commander of the Logistics Forces
of the Armed Forces of Ukraine
Brigadier General

Volodymyr KARPENKO
_____ 20

Developed and submitted by**Head of the working group**

Chief of the Central Department for Provision
of Weapons of the Logistics Forces
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Brigadier General

Serhii TSARII
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FOREWORD

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

Order of the Commander of the Logistics Forces of the Armed Forces of Ukraine dated " ____ " _____ 2024 № _____.

Head of the working group

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Members of the working group:

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HOLOVAN Viacheslav Hryhorovych, Professor of the Department of Missile and Artillery Armament of the Faculty of Training of Missile and Artillery Armament Specialists of the Military Academy (Odesa), PhD in Engineering, Professor, member of the Armed Forces of Ukraine.

TAKEN INTO ACCOUNT:

- 1. Professional standard of a tactical officer of the Armed Forces of Ukraine.*
- 2. Comments from internal and external stakeholders.*
- 3. Suggestions from students.*
- 4. Experience in combat operations.*

1. PROFILE OF THE EDUCATIONAL PROGRAMME OF THE PROFESSIONAL MILITARY EDUCATION COURSE

1 - General information	
Full name of the higher education institution (HEI)	Military Academy (Odesa)
Name of the document on completion and scope of the educational programme of the professional military education course	Certificate of completion of the educational programme of the professional military education course of the tactical level command course (L-1C) MOGBWSCCRA: MOS 707100, 707200, 707300. Scope of the educational programme: 19 ECTS credits.
Prerequisites.	Bachelor's degree or higher education; completion of a professional course at the tactical level L-1B.
Language(s) of instruction	Ukrainian (English)
Validity of the educational programme of the professional education course	Until the update or introduction of a new educational programme.
2 - The purpose of the educational programme of the professional military education course	
<p>Training of a tactical officer who is competent in managing the operation of ground-based weapons systems for close combat and reconnaissance, capable of performing assigned tasks in positions with the staff category "captain", carrying out professional activities in accordance with official duties, being a leader in a military team, making decisions in accordance with requirements of governing documents and critical analysis of the situation, being responsible for them, being responsible for subordinates.</p> <p>Performing official (special) duties that determine the scope of tasks assigned by the position and other regulations.</p>	
3 - Characteristics of the educational programme of the professional military education course	
Subject area	Field of knowledge: "25 Military sciences, national security, state border security"; Speciality: "255 Operation and repair of rocket and artillery weapons"; Specialisation: "Operation management of ground-based weapons systems for close combat and reconnaissance".
The main focus of the educational programme of the professional education course	Professional military education for military service in typical positions defined in the professional standard of a tactical officer.
Programme features	Training in the system of multi-level professional military education for officers of the Armed Forces of Ukraine. Features of the combat experience of the Russian-Ukrainian war.
4 - Employability and further study opportunities of graduates	
Employability	Typical positions of persons with the staff category "captain", which are defined in the professional standard of a tactical officer:

	<ul style="list-style-type: none"> - cycle commission teacher (in training centres and training complexes); - deputy commander of a technical battery - head of the routine maintenance department; - deputy chief of staff of a maintenance and recovery battalion; - engineer of the production and technical department of the arsenal; - engineer of the technical control department of the arsenal; - engineer of the rocket and artillery armament service of the brigade (regiment) logistics; - workshop engineer; - commander of a repair (maintenance) company; - junior researcher of a research laboratory; - head of the production and dispatch section; - head of the armament (special equipment) group; - head of the aviation weapons storage group; - head of the training complex; - head of the missile and artillery armament service (provision of close combat and reconnaissance and surveillance equipment) of the logistics centre (base); - officer of the logistics department (group) of the brigade (centre) headquarters; - assistant chief of the rocket and artillery armament service (destruction means, provision of close combat equipment and intelligence and surveillance devices) of the brigade (regiment, centre); - assistant to the leading engineer of the quality control group; - senior engineer of the artillery (small arms) workshop; - senior engineer of the department (division) of regulations and repair (repair, storage, technical control); - senior officer of the department (security officer); - senior assistant to the head of the production and dispatch department (storage, technical).
Further training	Training under the educational programme of the tactical level command and staff course (L-2) of professional military education.
5 - Teaching and assessment	
Teaching and learning	The main types of teaching and learning activities used to teach the components of the educational programme: lectures; seminars, group, practical, group exercises; tactical (tactical formation, tactical and special) independent classes, including at the field training base.
Assessment.	Assessment of the learning outcomes of course students includes the full range of control measures provided by the programmes of academic disciplines and is carried out on a 100-point scale, ECTS scale and national scale.
6 - Programme competences	
Military and professional competences (MPC)	MPC 1 The ability to plan, organise and conduct the main types of combat (combat actions, operations), to navigate in complex combat conditions, as well as to plan the decision-making process according to NATO standards (MDMP).
	MPC 2 Ability to organise and plan the technical support of a military unit in various types of combat.
	MPC 3 Ability to organise the work of chiefs of support services of a military unit in everyday activities and various types of combat, to work with electronic accounting systems for weapons, military

	<p>equipment and logistics, to use special software modules.</p> <p>MPC 4 Ability to motivate people and move towards a common goal, ensure psychological stability, personal safety and security of personnel in the process of solving unit tasks, provide first aid in various situations.</p>
Military-specific competences (MSC)	Military specialised competence 1 Ability to organise and manage the operation of ground-based weapons systems, close combat and reconnaissance equipment.
7 - Training outcomes	
Military professional training (LOmpt)	LOmpt 1 To know and understand the processes of planning, organising and conducting major types of combat (combat actions, operations), and to be able to make decisions according to NATO standards (MDMP).
	LOmpt 2 Be able to organise and plan the technical support of a military unit in various types of combat.
	LOmpt 3 Be able to organise the work of chiefs of support services of a military unit in everyday activities and various types of combat, work with electronic accounting systems for weapons, military equipment and logistics, use special software modules.
	LOmpt 4 Be able to motivate people, ensure psychological stability, personal safety and security of personnel in the process of solving unit tasks.
Military specialised training (LOmst)	LOmst 1 To be able to organise and manage the operation of ground-based weapons systems, close combat and reconnaissance equipment.
8 - Resource support for programme implementation	
Personnel Support	<p>The academic staff involved in the educational programme are full-time employees of the Military Academy, a significant proportion of whom hold academic degrees, academic titles, and have a proven record of scientific and professional activity. The formation of professional competences is ensured by specialists with relevant professional experience.</p> <p>The practice-oriented nature of the educational programme provides for the active involvement of practitioners whose expertise corresponds to the programme's field, thereby strengthening the synergistic link between theoretical and practical training.</p> <p>The head and members of the working group responsible for programme development, as well as the teaching staff delivering the educational programme, meet the requirements established by the Ministry of Defence of Ukraine.</p>
Logistical support	<p>The material and technical base of the Military Academy (Odesa) and the Military Academy's Educational Process Support Centre is used to implement the competences 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>
Information and educational-	<p>Educational and methodological support is developed in accordance with the current regulatory and legislative documents of the</p>

methodological support	<p>Ministry of Education and Science of Ukraine and orders of the Ministry of Defence of Ukraine, and consists of the following materials:</p> <ul style="list-style-type: none">instructional and methodological materials for practical classes;teaching materials for all types of classes;methodological instructions for the execution of works (projects);methodological guidelines for organising independent work;programmes of all types of practical training;diagnostic tools. <p>The library fund is used in the training, 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 methodological materials.</p> <p>The official website of the Academy (http://vaodesa.mil.gov.ua/) contains information on educational, scientific and educational activities, structural units, admission rules, contacts, and users have the opportunity to use all available library resources. The technological and material and technical support of the educational process is available.</p>
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2. LIST OF COMPONENTS OF THE CURRICULUM OF THE PROFESSIONAL MILITARY EDUCATION COURSE AND COMPLIANCE OF PROGRAMME COMPETENCIES AND LEARNING OUTCOMES WITH THE COMPONENTS OF THE CURRICULUM

2.1. List of EP components

Academic course code	Components of the educational programme (academic courses/modules)	Number of of credits	Form of Final Assessment
MP 01	Mechanised (motorised infantry) brigade in combat and operations	3	Examination
MP 02	Organisation of technical support	4	Examination
MP 03	Organisation of work of the head of the support service	4	Examination
MP 04	Military leadership	3	Examination
MS 01	Management of the operation of ground weapon systems	5	Examination
Total for the programme of credits		19	

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

	MP 01	MP 02	MP 03	MP 04	MS 01
MPC 1	+				
MPC 2		+			
MPC 3			+		
MPC 4				+	
MSC 1					+

2.3 Correspondence of learning outcomes to the components of the study programme

	MP 01	MP 02	MP 03	MP 04	MS 01
LOmp 1	+				
LOmp 2		+			
LOmp 3			+		
LOmp 4				+	
LOms 4					+

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

No. s/n	Code of academic discipline	Name of the discipline (module)	Distribution by semesters		Number of ECTS credits	Number of hours						Independent work	Distribution of classroom hours by courses and semesters *			
			exams	credits		Total amount of	Contact hours						1 course		2nd year	
							total	including					Semesters			
								lectures	group seminars	practical, laboratory	control measures		1	2	3	4
			Number of weeks in a semester													
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>	<i>12</i>	<i>13</i>	<i>14</i>	<i>15</i>	<i>16</i>	<i>17</i>
1	MP 01	Mechanised (infantry) brigade in combat and operations		2 semesters - 4 hours	3	90	48	8	6	30	4	42	1,47	1,53		
2	MP 02	Organisation of technical support	4 semesters - 6 hours	3 semesters - 2 hours	4	120	60	4	18	30	8	60			2	2
3	MP 03	Organisation of work of the head of the support service	4 semesters - 4 hours	3 sem - 2 hrs	4	120	60	6	28	20	6	60			2	2
4	MP 04	Military leadership		1 semester - 2 hour	3	90	44	-	30	12	2	46	3			

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
				s												
5	MS 01	Operation management of ground-based weapon systems	2 semesters - 4 hours	1 semester - 4 hours	5	150	76	6	52	12	6	74			2,5	2,5
Total:					19	570	286	24	162	100		284	4,47	1,53	6,5	6,5
Total number of																
Number of hours per week																3
Number of exams													1	1	2	
Number of differentiated tests (credits)																

4. PROGRAMMES OF ACADEMIC DISCIPLINES OF THE EDUCATIONAL PROGRAMME

Mechanised (motorised infantry) brigade in combat and operations

The general purpose of the component of the educational programme:

As a result of studying the discipline, the student should

Know:

processes of planning, organising and conducting the main types of combat (combat actions, operations);
the procedure for the development and execution of combat and other documents;

Be able to:

make decisions according to NATO standards (MDMP);
develop and execute combat and other documents;
make optimal decisions based on the analysis of information and situation;
make informed decisions in combat conditions, solve atypical tasks, give orders (instructions), and be responsible for their implementation;
assess and predict the development of the tactical situation;
justify assigned combat tasks;
organise the implementation of comprehensive support measures.

Organisational and methodological instructions:

The methodology of teaching the discipline is based on the basic principles of didactics (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, 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 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.

In this case, depending on the need to achieve levels of knowledge or skills, the teacher should use the following methods
verbal and visual;
training;

situational and cognitive.

The verbal-visual method, in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied to obtain new knowledge and form the appropriate imagination.

The training (reproductive) method is based on performing complex actions in accordance with an algorithm (pre-established procedure) determined by the instructor 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 information and analytical skills.

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 exercises when the method of finding the optimal solution is determined by the class leader, but the solution is found by the student.

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

during lecture classes:

The lecture is the main type of classroom teaching intended for mastering the theoretical material of the topic.

The main purpose of the lecture is to systematise the basis of scientific knowledge and practical experience on the topic, the state and prospects of development of management science, theory and practice of management activities of a military leader, to focus on the most complex and nodal issues of the educational material. The lecture should be problem-based, stimulate active cognitive activity of students, and promote creative thinking. In order to enhance the cognitive activity of servicemen and to develop their creative thinking, technical teaching aids should be skilfully used during lectures in combination with active forms and methods of lecturing. Classes should be conducted using the method of oral presentation of educational material, with individual questions and elements worked out in the form of a dialogue between the teacher and the students and by asking them problematic questions.

during group lessons:

A group lesson is a type of training session during which the teacher presents new educational material in a verbal and visual way, controls the students' understanding of this material by questioning and helps to consolidate it.

Group classes are held to enable students to study in detail the issues and problems discussed in lectures and to consider in detail topical issues of the course material. The main teaching methods are explanation with demonstration and discussion. Technical means of information transmission, tables, diagrams, slides, films and posters should be used to ensure visualisation during the classes.

during practical classes:

Practical training is a type of training session during which the teacher organises the mastering of the theoretical provisions of the topic through individual performance of specially designed tasks and promotes the formation of skills and abilities in the practical application of these theoretical provisions.

Practical classes should be aimed at consolidating and deepening the knowledge acquired by students in lectures and group classes, as well as during independent work, and developing their skills in solving practical problems in their speciality.

during the organisation of independent work:

Independent work should be carried out with the aim of working out and mastering the educational material; consolidation and deepening of knowledge, skills and abilities; preparation for the next classes and control measures; formation of a culture of mental work, independence and initiative in the search, acquisition and enrichment of knowledge among students.

Independent work should be provided with educational literature, study guides, assignments and methodological recommendations. All teaching and learning materials should have electronic versions. Methodological materials for independent work should provide for the possibility of self-control.

Material and technical support:

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 the training ground of the educational process support centre. It is mandatory to use technical training aids during the training sessions.

Information and methodological support:

1. BP 3-(01,04)11(55).01 Temporary Combat Regulations of the Mechanized Troops of the Land Forces of the Armed Forces of Ukraine, Part I (Brigade), approved by the Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 152 dated 09.03.2021.

2. Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I (Brigade, Regiment): Command of the Land Forces of the Armed Forces of Ukraine, 2017. - 384 p., classified.
3. Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part II (battalion, company), approved by the Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 564 of 30.12.2016 with amendments.
4. Temporary Combat Regulations of the Airborne Assault Troops of the Armed Forces of Ukraine, Part II (Battalion) - K. Command of the Airborne Assault Forces of the Armed Forces of Ukraine, 2019. 260 p.
5. Temporary Combat Regulations of the Airborne Assault Forces of the Armed Forces of Ukraine, Part III (Company) - K. Command of the Airborne Assault Forces of the Armed Forces of Ukraine, 2019. 230 p.
6. Military manual MP 1.0 "Military leadership." - K. General Staff of the Armed Forces of Ukraine, 2016. - 29 p.
7. Dembovsky B.M. Basic provisions of defensive combat. Preparation and conduct of defence by a brigade. -K.: National Defence University of Ukraine, 2002. - 104 p., secret, inv. 418.
8. Principles of Training and Use of the Armed Forces of Ukraine. Part II (preparation and conduct of operations of the Armed Forces of Ukraine). K: General Staff of the Armed Forces of Ukraine, 2007. -189 p., secret, inv. 1964.
9. General tactics. The work of the regimental commander and staff in organising defence: Odesa Institute of the Land Forces, 1997. 44 p., dsk, inv.107.
10. The use of mechanised units in the performance of special tasks in modern armed conflicts. - Odesa: Science and technique, 2008. - 98 p.
11. Methodological recommendations on the preparation and use of units and subdivisions during the ATO - Command of the Airborne Assault Forces of the Armed Forces of Ukraine (№1390/1restricted of 10.09.14).
12. International Law: Military Aspects - K.: National Defence University of Ukraine Publishing House, 2003. - 252 p.
13. Guidelines for the actions of units within the UN peacekeeping forces in areas of military conflict / MoD of Ukraine. - K.: LC "Maker", 2004. - 87 p.
14. Training manual "Peculiarities of preparation and conduct of combat operations against illegal armed groups by mechanised (tank) units in urban and mountainous areas" - Odesa Institute of the Land Forces, 2006. - 148 p.
15. Training manual "Development of views on the preparation and conduct of special operations in armed conflicts." - Sumy: Mriya-1 Publishing House, 2004. 152 p.
16. Training Organisational and Staff Structure of the Units of the Armed Forces of Ukraine. - Odesa: Odesa Institute of the Land Forces, 2005. 88 p.

17. Training manual “Purpose, tasks, training organisational and staffing structure and combat capabilities of brigades of the main defence forces and the rapid response corps.” - K: National Defence University of Ukraine, 2002. - 31 p., classified, inv. 417.
18. Guidelines on the operational work of military command and control bodies of the Armed Forces of Ukraine. K: General Staff, 2008. 266 p., secret, inv. 1601.
19. Guidelines on Operational Intelligence. -K.: Main Intelligence Directorate of the General Staff, 2009. - 234 p., secret, inv. 1793.
20. Instruction on Radiation, Chemical, Biological Protection of the Armed Forces of Ukraine - K.: General Staff of the Armed Forces of Ukraine, 2009. 80 p., secret, inv. 1666.
21. Organisation, armament and tactics of actions of units of a probable enemy. - Odesa: Odesa Institute of the Land Forces, 2005. 67 p.
22. Textbook “General Tactics”. Part I. Defence - K. 2011. - 372 p., secret, inv.2295.
23. Textbook “General Tactics”. Part II. Offensive - K. 2011. 344 p., secret, inv.2296.
24. Textbook “General Tactics”. Part III. Participation of the Brigade in Special Operations - K. 2011.3. - 212 p., secret, inv.2297.
25. Handbook: “The Law of War.” - K.: Liubava Publishing House, 1997. - 128 p.
26. US Army Field Manual. Conduct of hostilities. FM 3-07 2008.
27. Prospects for the development of weapons and military equipment of the Armed Forces of Ukraine for the period up to 2025. Proceedings of the interagency scientific and practical conference. - Kyiv: Central Research Institute of Military Equipment, 2009. - 292 p., secret, inv. 1715.
28. Working materials based on the results of the work of mobile groups in operational and tactical groups. - Military Scientific Directorate of the General Staff of the Armed Forces of Ukraine, 2016, inv.2488. - 85 p.
29. Recommendations for mechanised units on actions on the battlefield in modern conditions. - K.: Main Directorate of Combat Training of the Main Command of the Land Forces of the Armed Forces of Ukraine, 2002. - 45 p.
30. Recommendations on the preparation and conduct of actions for mechanised and tank units in the course of conflict termination, disarmament and liquidation of illegal armed formations - K.: Main Combat Training Directorate of the Main Command of the Armed Forces of Ukraine, 2002. – 79 p.
31. Generalised materials on the analysis of the performance of tasks by military units (subunits) of the Armed Forces in the course of the ATO - Centre of Logistics and Materiel of the Armed Forces of Ukraine, 2016, inv. 2409.-156 p.
32. Generalised materials of the analysis of preparation and conduct of operations (combat actions) by the troops (forces) of the Armed Forces of Ukraine during the ATO.

33. TKP 7-000(162) 01.01 “Collection No. 1 of Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022.” - K.: Main Directorate of Doctrines and Training of the General Staff of the Armed Forces of Ukraine, 2022.

34. TKP 7-000(162) 01.02 “Collection No. 2 of the Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022.” - K.: Main Directorate of Doctrines and Training of the General Staff of the Armed Forces of Ukraine, 2022.

35. 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.: Main Directorate of Doctrines and Training of the General Staff of the Armed Forces of Ukraine, 2022.

TKP 7-000(162)01.04 “Collection No. 4 of the Materials for Studying the Combat Experience of the Russian-Ukrainian War of 2022.” - K.: Main Directorate of Doctrines and Training of the General Staff of the Armed Forces of Ukraine, 2022.

Information resources

1. Website of the Military Academy (Odesa). www.vaodessa.org.ua.
2. Electronic library of the Military Academy (Odesa) (internal network). <http://192.168.1.254/>.
3. Electronic library of the Department of Missile and Artillery Armament (internal network of the Military Academy (Odesa)). <http://192.168.1.254/index.php/kafedra-rao>.
4. Website of the Ministry of Defence of Ukraine. <http://www.mil.gov.ua/>.

Titles of topics and allocation of class time by type of training

№ n/a	Types of training sessions, control measures	Total hours	Of which		Title of the topic and study questions
			Training sessions	Independent work	
1	2	3	4	5	6
		28	14	14	Section 1. Purpose, tasks, weapons and combat equipment of a mechanised brigade and its units. Fundamentals of combat employment.
		20	10	10	Topic 1. Purpose, organisational and staffing structure of a mechanised (motorised infantry) brigade and its structural units
1.	Lecture	2	2	2	<p>Lesson 1 Organisational and staffing structure, weapons and combat equipment of a mechanised (motorised infantry) brigade.</p> <p>1. Purpose and tasks of a mechanised (motorised infantry) brigade in tactical warfare. Organisational and staffing structure of the <i>mechanised (motorised infantry) brigade</i>.</p> <p>2. Weapons and military equipment of the <i>mechanised (motorised infantry) brigade</i>.</p> <p>Independent work</p> <p>1. Organisational and staffing structure of the tasks and purpose of the units of the <i>mechanised (motorised infantry) brigade</i>.</p> <p>2. Weapons and military equipment of the <i>mechanised (motorised infantry) brigade</i>.</p>
2.	Group session	2	2	2	<p>Lesson 2. Organisational and staffing structure and basics of combat employment of artillery and mortar units.</p> <p>1. Organisational and staff structure and technical specifications of the main models of weapons of the units of the <i>artillery units</i>.</p> <p>2. Fundamentals of artillery combat employment in combat operations. Organisation of fire damage.</p> <p>Independent work</p> <p>1. Fundamentals of combat use of artillery in the conduct of combat operations.</p> <p>2. Organisation of enemy fire engagement.</p> <p>3. Technical characteristics of the main models of weapons of the <i>artillery units</i>.</p>
3.	Group session	2	2	2	<p>Lesson 3. Organisational and staffing structure of air defence units of the mechanised brigade, basics of their combat use.</p> <p>1. Fundamentals of air defence of ground forces.</p>

					<p>2. Organisational and staffing structure of air defence units of the mechanised brigade (anti-aircraft missile and artillery division of the brigade, anti-aircraft missile (missile-artillery, self-propelled artillery, artillery) battery, separate radio battalion and their combat capabilities.</p> <p>3. Purpose, composition and technical characteristics of the main types of weapons of air defence units of the mechanised brigade.</p> <p>Independent work</p> <p>1. Fundamentals of air defence of ground forces.</p> <p>2. Organisational and staffing structure of air defence units of the mechanised brigade and their combat capabilities.</p> <p>3. Purpose, composition and technical characteristics of the main types of weapons of air defence units of the mechanised brigade.</p>
4.	Group exercise	2	2	2	<p>Lesson 4. Organisational and staffing structure of the field communications node, reconnaissance company, CBRN company, basics of their combat use.</p> <p>1. Organisational and staffing structure, weapons, capabilities of the field communications node and basics of their use.</p> <p>2. Organisational and staff structure and weapons of a reconnaissance company. Combat capabilities and basics of application.</p> <p>3. Organisational and staff structure and weapons of the CBRN company. Combat capabilities and principles of application.</p> <p>Independent work</p> <p>1. Organisational and staff structure, weapons, capabilities of the field communications node and the basics of use.</p> <p>2. Organisational and staff structure and weapons of a reconnaissance company. Combat capabilities and basics of application.</p> <p>3. Organisational and staff structure and weapons of the CBRN company. Combat capabilities and basics of application.</p>
5.	Group exercise	2	2	2	<p>Lesson 5. Organisational and staffing structure and capabilities of the engineering support group.</p> <p>1. Organisational and staffing structure, weapons and equipment of the engineering support group.</p> <p>2. Combat capabilities and basics of application. Movement support detachment, movement support company, composite route clearance company - as elements of the brigade's combat (marching) order.</p> <p>3. Organisation of engineering support during combat operations.</p> <p>Independent work</p> <p>1. Organisational and staff structure, weapons and military equipment of a mechanised brigade.</p>

					2. Fundamentals of the use of combat units of a mechanised brigade. 3. Fundamentals of employment of combat support units.
		8	4	4	Topic 2. Command posts of the mechanised brigade.
6.	Lecture	2	2	2	Lesson 1. Mechanised brigade headquarters and organisation of work in the headquarters. 1. Typical (basic) organisational structure of the headquarters, tasks of its structural units. 2. Methods of work of the commander and staff in the preparation and conduct of combat operations. Independent work 1. Typical (basic) organisational structure of the headquarters, tasks of its structural units. 2. Methods of work of the commander and staff in the preparation and conduct of combat operations.
7.	Group session	2	2	2	Lesson 2. Command posts of the mechanised brigade. Procedure for organising work at command posts. 1. Command posts of the mechanised brigade, purpose. 2. Distribution of personnel to command posts and the order of organisation at command posts. Independent work 1. Command posts of a mechanized brigade, purpose. 2. Distribution of personnel to command posts and the order of organisation at command posts.
		62	28	34	Section 2. Conducting tactical (stabilisation, specific, special) actions by a mechanised (motorised infantry) brigade
		20	10	10	Topic 3. Fundamentals of preparing and conducting a march by a mechanised (infantry) brigade
8.	Lecture	2	2	4	Lesson 1. Fundamentals of the mechanised brigade march. 1. The main provisions of the brigade's march. 2. Organisation of the brigade's march. 3. Implementation of the brigade's march to the area of armed conflict. Independent work 1. The main provisions of the brigade's march. 2. Organisation of the brigade's march. The work of the commander and staff in organising the march. 3. Study of the 2 nd provisions of the Combat Regulations of the Land Forces of the Armed Forces of Ukraine, Part I. 4. Preparation of a working map. Development of reference and explanatory tables.

9.	Group exercise	4	4	4	<p style="text-align: center;">Complex tactical task No. 1</p> <p>Lesson 2. The work of the brigade commander and staff with the receipt of a combat order.</p> <p>1. Receiving the task. 2. Analysis of the task.</p> <p>Independent work</p> <p>1. Study of the theoretical provisions of the Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I on planning a march. 2. Preparation of data for the development of action options.</p>
10.	Group exercise	4	4	2	<p>Lesson 3. The work of the commander, staff, chiefs of services and services in planning the march.</p> <p>1. Development of options for building a marching order. 2. Distribution of forces and means by columns.</p> <p>Independent work</p> <p>1. Study of theoretical provisions of the statute. 2. Drawing the elements of the chosen option on the working map.</p>
11.		20	8	12	Topic 4. Fundamentals of preparation and conduct of defensive combat by a mechanised (infantry) brigade
12.	Lecture	2	2	2	<p>Lesson 1. Fundamentals of defensive combat of a mechanised brigade.</p> <p>1. Fundamentals of defensive combat of a mechanised brigade. 2. Conducting defensive combat. Features of manoeuvre defence.</p> <p>Independent work</p> <p>1. Fundamentals of defensive combat of a mechanised brigade. 2. Conducting a defensive battle. Features of manoeuvre defence.</p>
13.	Group session	2	2	6	<p>Lesson 2. Peculiarities of conducting combat (actions) by air defence units of ground forces in defence and offence.</p> <p>1. General provisions 2. Conducting air defence units in defence and offence. 4. Features of the use of air defence units of the mechanised brigade in the conduct of combat (tactical) operations, taking into account the combat experience of the Russian-Ukrainian war.</p> <p>Independent work</p> <p>1. General provisions 2. Conduct of air defence units in defence and offence. 4. Peculiarities of the use of air defence units in combat (tactical) operations, taking into account the combat experience of the Russian-Ukrainian war.</p>

					<p>5. Fundamentals of defensive combat of the mechanised brigade.</p> <p>6. Study of the provisions of the Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I.</p> <p>7. Peculiarities of the work of the commander and staff in planning a defensive battle.</p>
14.	Group exercise	4	4	4	<p style="text-align: center;">Complex tactical task 2</p> <p>Lesson 3. The work of the brigade commander and staff with the receipt of a combat order.</p> <p>1. Receiving the task.</p> <p>2. Analysis of the task.</p> <p>Independent work</p> <p>1. Identify the data required to develop options for action.</p> <p>2. Study of the provisions of the Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I.</p>
15.		22	10	12	Topic 5. Fundamentals of preparing and conducting an offensive battle by a mechanised (motorised infantry) brigade
16.	Lecture	2	2	4	<p>Lesson 1. Fundamentals of offensive combat of a mechanised brigade.</p> <p>1. Fundamentals of offensive combat of a mechanised brigade.</p> <p>2. Conducting an offensive battle.</p> <p>Independent work</p> <p>1. Fundamentals of offensive combat of a mechanised brigade.</p> <p>2. Study of the provisions of the Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I.</p> <p>3. Features of the work of the commander and staff in planning an offensive battle</p>
					Complex tactical task №3
17.	Group exercise	6	6	8	<p>Lesson 2. The work of the brigade commander and staff in receiving combat orders.</p> <p>1. Receiving the task.</p> <p>2. Analysis of the task.</p> <p>Independent work</p> <p>1. Identify the data required to develop options for action.</p> <p>2. Study of the provisions of the Combat Regulations of the Mechanized and Armoured Troops of the Land Forces of the Armed Forces of Ukraine, Part I.</p> <p>3. Preparation for the differentiated test</p>
	Control measures	2	2		Differentiated test
	Total for the discipline	90	42	48	

Organisation of technical support

General purpose of the educational programme component:

As a result of studying the discipline, the student should

Know:

basic provisions of guidelines for the organisation of logistics (technical) support of units and subunits;
 the procedure for manning troops with weapons, means of close combat and reconnaissance, means of destruction, military-technical property;
 the procedure for organising the protection, security and defence of the repair unit in combat conditions;
 the procedure for managing a repair unit in combat conditions;
 military decision-making process in NATO forces;
 procedure for organising technical support of a military unit during preparation and entry into combat (movement) of troops;
 the procedure for organising logistics (technical) support of a military unit (units) during preparation for movement and during movement on its

own;

the procedure for organising the logistical (technical) support of a military unit (units) during an offensive battle;
 the procedure for organising logistical (technical) support of a military unit (units) during preparation and during a defensive battle.

Be able to:

develop combat documents on the provision of munitions and artillery and technical support for a military unit and find solutions to provide appropriate logistics;

use theoretical knowledge of the principles and nature of modern combined arms combat (tactical operations) in the preparation and execution of technical support tasks for units and subunits;

Understand the task and assess the tactical situation in terms of technical support and reproduce the results of the assessment on a topographic map;

plan, organise and supervise the restoration and maintenance of weapons, melee and reconnaissance equipment;

to organise the protection, security and defence, engineering arrangement and camouflage of the area of deployment of the repair unit;

organise the activities of military units in terms of weapons and military equipment;

skills in the use of military units by types, branches of the Armed Forces of Ukraine, other military formations established in accordance with the laws of Ukraine (including NATO standards), organisation of interaction during joint tasks in operations (combat actions);

to make effective decisions on solving complex tasks and problems in the field of management of military units of troops (forces) on armaments and military equipment, in particular, planning, assessment and analysis of the situation and risks;

organise the provision of munitions to units in various types of combat.

Organisational and methodological instructions:

The methodology of teaching the discipline is based on the basic principles of didactics (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 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.

In this case, depending on the need to achieve levels of knowledge or skills, the teacher should use the following methods

verbal and visual;

training;

situational and cognitive.

The verbal-visual method, in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied to obtain new knowledge and form the appropriate imagination.

The training (reproductive) method is based on performing complex actions in accordance with an algorithm (pre-established procedure) determined by the instructor 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 information and analytical skills.

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 exercises when the method of finding the optimal solution is determined by the class leader, but the solution is found by the student.

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

When conducting lecture classes:

The lecture is the main type of classroom teaching designed to master the theoretical material of the topic.

The main purpose of the lecture is to systematise the foundations of scientific knowledge and practical experience on the topic, the state and prospects of development of management science, theory and practice of management activities of a military leader, to focus on the most complex and nodal issues of the educational material. The lecture should be of a problematic nature, stimulate active cognitive activity of students, and contribute to the formation of their creative thinking. In order to enhance the cognitive activity of servicemen and to develop their creative thinking, technical teaching aids should be skilfully used during lectures in combination with active forms and methods of lecturing. Classes should be conducted by the method of oral presentation of educational material, with individual questions and educational elements worked out in the form of a dialogue between the teacher and the students and by asking them problematic questions.

When conducting group classes:

A group lesson is a type of training session during which the teacher presents new educational material in a verbal and visual way, controls the students' learning of this material by questioning and helps to consolidate it.

Group classes are held for the purpose of detailed study by students of the issues and problems discussed in lectures and detailed consideration of topical issues of the educational material. The main teaching methods used are explanation with demonstration and discussion. Technical means of information transmission, tables, diagrams, slides, films and posters should be used to ensure visualisation during the classes.

When conducting practical classes:

A practical lesson is a type of training session during which the teacher organises the mastery of the theoretical provisions of the topic through individual performance of specially designed tasks and promotes the formation of skills and abilities to apply these theoretical provisions in practice.

Practical classes should be aimed at consolidating and deepening the knowledge gained by students in lectures and group classes, as well as during independent work, and developing their skills in solving practical problems in their speciality.

When organising independent work:

Independent work should be carried out with the aim of working out and mastering the educational material; consolidating and deepening knowledge, skills and abilities; preparing for the next classes and control measures; forming a culture of mental work, independence and initiative in the search, acquisition and enrichment of knowledge among students.

Independent work should be provided with educational literature, study guides, assignments and methodological recommendations. All teaching and learning materials should have electronic versions. Methodological materials for independent work should provide for the possibility of self-control.

Material and technical support:

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 the training ground of the educational process support centre. It is mandatory to use technical training aids during the training sessions.

Information and methodological support:

1. Law of Ukraine "On Defence of Ukraine".
2. Logistics Force Doctrine. VKP 4-32(41).01.
3. Doctrine of the Logistics Forces Employment. VKP 4-32(03).01.
4. Joint Logistics Doctrine SP 4-00(30)03.01.
5. Doctrine of Logistics Support of the Land Forces of the Armed Forces of Ukraine VKP 4-00(11).01.
6. Doctrine on Provision of Logistics, Works and Services VKP 4-179(03).01.
7. Doctrine on the organisation of movements and transportations in the Armed Forces of Ukraine RMU 4-00(03).01.
8. Combat Regulations: Logistics of the Land Forces of the Armed Forces of Ukraine (Tactical Level)BP 4-32(11).01.
9. Combat Regulations for Logistic Operations of the Armed Forces of Ukraine (Tactical Level), BP 4-146(11).01.
10. Combat manual of the troop deployment operation (tactical level) BP 4-147(11).01.
11. Instruction on Combat Training of the Logistics Forces of the Armed Forces of Ukraine VKPD 7-00(41).01.

12. Instruction on the Organisation of Tactical (Command and Staff) Exercises in the Armed Forces of Ukraine (Brigade (Regiment), Battalion, Company and their levels) VKDP 7-00(174)03.01. Kyiv State Enterprise of the General Staff.
13. Instruction of the separate repair and restoration regiment VKDP 4-99(55).01
14. Basic Provisions on Logistics Support of the Armed Forces of Ukraine: approved by the Order of the Ministry of Defence of Ukraine of 11.10.2016 No. 522.
15. Regulations on military transportations by rail, sea, river and air: enacted by the Order of the Ministry of Defence of Ukraine of 05.09.2013 No. 595.
16. Procedure for the execution of operational (combat) documents: approved by the Order of the General Staff of the Armed Forces of Ukraine of 25.04.2020 No. 140.
17. Analysis of technical support for the actions of units (units) during the anti-terrorist operation. Kyiv: Arming the Armed Forces of Ukraine, 2014.
18. 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 Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine of 15.07.2008.
19. Norms of irrecoverable losses, withdrawal for repair of weapons and military equipment, and expenditure of other material resources in the operations of the Armed Forces of Ukraine: approved by order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine of 26.01.2016.
20. Military reference book “Classes of logistics supply to the armed forces of NATO member states” VDV 01.300.001-2016 (01).
21. 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.
22. Demianchuk B.O., Malyskin O.V. Fundamentals of technical support. Substantiation of decisions: a textbook. Odesa: VA, 2013. 250 p.
23. Demianchuk B.O., Holovan V.G., Honcharuk A.A., Nikul S.O., Malyskin O.V. Fundamentals of technical support. Actions of the missile and artillery service: a textbook. Odesa: VA, 2014. 280 p.
24. Planning of logistics support for military units (subdivisions) according to NATO standard operating procedures. Kyiv. NOU.
25. Shumkov I., Rudynskiy V., Pikus D., Bondarenko A. Troop management procedure (TLP). Training manual Odesa. VA. 97 p.
26. The use of units and military units of technical support. PART I: Technical support units: textbook / Ovcharenko I.V. and others; edited by Kopashynskiy S.A. Kyiv: Ivan Cherniakhovskiy National University, 2017. 136 p.
27. Application of units and military units of technical support. PART II: Repair and restoration military unit: textbook / Ovcharenko I.V. and others; edited by Kopashynskiy S.A. Kyiv: Ivan Cherniakhovskiy National University, 2018. 80 p.

Information resources

1. Website of the Military Academy (Odesa). www.vaodessa.org.ua.
2. Electronic library of the Military Academy (Odesa) (internal network). <http://192.168.1.254/>.
3. Electronic library of the Department of Missile and Artillery Armament (internal network of the Military Academy (Odesa)). <http://192.168.1.254/index.php/kafedra-rao>.
4. Website of the Ministry of Defence of Ukraine. <http://www.mil.gov.ua/>.

Titles of topics and allocation of class time by type of training

№ n/a	Types of training sessions, control measures	Total hours	Of which		Title of the topic and study questions
			Training classes	Independent work	
1	2	3	4	5	6
		18	10	8	Topic 1. Organisation of logistical (technical) support of a military unit (units) during preparation and movement.
1.	Lecture	4	2	2	Lesson 1. General provisions of troop transport. 1. Basic terms and definitions and general provisions. 2. Organisation and provision of military transport. Independent work 1. Basic terms and definitions and general provisions. 2. Organisation and provision of military transport.
2.	Group session	4	2	2	Lesson 2. Fundamentals of military transport organisations. 1. The use of modes of transport for military transport. 2. Planning and management of movements and transportations. Independent work 1. Safety measures during loading (unloading) of railway rolling stock. 2. Safety measures during loading (unloading) on ships. 3. Safety measures during loading (unloading) and rules of conduct for aircrew on board an aircraft.
3.	Group session	4	2	2	Lesson 3. Organisation of logistical (technical) support of a military unit (units) during preparation for movement and during movement on the move. 1. Logistics support in preparation for movement. 2. Logistical support of units in the course of movement. Independent work 1. Sequence of work of the chief of the service of providing armament of the unit in preparation for movement.
4.	Group session	4	2	2	Lesson 4. Organisation of logistical (technical) support of a military unit (units) during transportation by rail, water and air. 1. Logistics support during transportation by rail.

					2. Features of logistics support by water and air transport. Independent work 1. Order of the Chief of the General Staff of the Armed Forces of Ukraine of 11.09.2020 №140. 2. Symbols used in logistics documents.
5.	Group session	2	2		Lesson 5. Procedure for calculating the necessary materials for fixing weapons and equipment. 1. Placement of weapons and equipment on platforms. 2. Materials, devices for placing and securing weapons and equipment.
		42	20	22	Topic 2. Organisation of logistical (technical) support of a military unit (units) during preparation and during a defensive battle.
6.	Lecture	2	2		Lesson 1. Logistics (technical) support of units in preparation for defensive combat. 1. General provisions. 2. Actions of forces and means of technical support in the preparation of a defensive battle.
7.	Group session	6	2	4	Lesson 2. Logistics (technical) support of units in the course of defensive combat. 1. Actions of forces and means of technical support in the course of a defensive battle. 2. Features of technical support in the defence of water obstacles. Independent work 1. Features of the organisation of logistics support of a military unit (units) during a defensive battle in the city. 2. Features of the organisation of logistics support of a military unit (units) during a defensive battle at night.
8.	Group session	8	2	6	Lesson 3. The work of the armament support services of a military unit in preparation for defence. 1. The sequence of work of the chief of the unit's support service in preparation for defence. 2. Preparing proposals on munitions and artillery-technical support to be included in the logistics support order. Independent work 1. The sequence of work of the chief of the unit's support services in preparation for defence. 2. Introduction to the group exercise. 3. Drawing the general situation on a working map.
9.	Group exercise	12	6	6	Lesson 4. Organising the provision of munitions and artillery-technical support for a military unit in preparation for defence. 1. Understanding the task. 2. Calculation of time. 3. Assessment of the situation. 4. Developing a plan and making a decision. 5. Organisation of command and coordination regarding munitions and artillery-technical support Independent work

					<ol style="list-style-type: none"> 1. Concept development and decision-making regarding munitions and artillery-technical support. 2. Building up a partial situation on the working map. 3. Methods for calculating the distribution of missiles and ammunition by unit. 4. Methods for calculating the provision of units with missiles and ammunition. 5. Methodology for calculating the supply of missiles and ammunition to unit units.
10.	Group exercise	12	6	6	<p>Lesson 5. Practice combat documents on the provision of munitions and artillery-technical support for a military unit.</p> <ol style="list-style-type: none"> 1. Drawing up a calculation of the provision of units with weapons. 2. Calculating combat kits and military stocks of missiles and ammunition. 3. Calculating the distribution of missiles and ammunition. 4. Calculating the provision of missiles and ammunition to the unit. 5. Drawing up a calculation of the supply of missiles and ammunition to the units of the unit. 6. Drawing up a working map by the chief of the supply service. <p>Independent work</p> <ol style="list-style-type: none"> 1. Completing the build-up of the situation on the working map. 2. Completion of calculations.
Control measures		2	2		Differential credit
		60	30	30	Topic 3. Organisation of logistical (technical) support of a military unit (units) in an offensive battle.
11.	Group session	2	2		<p>Lesson 1. Logistics (technical) support of units in preparation for offensive combat.</p> <ol style="list-style-type: none"> 1. General provisions. 2. Actions of forces and means of technical support in the preparation of offensive combat.
12.	Group session	8	2	6	<p>Lesson 2. Logistics (technical) support of units in the course of offensive combat.</p> <ol style="list-style-type: none"> 1. Content of measures of logistics (technical) support of units in the course of an offensive battle. 2. Features of the organisation of logistics (technical) support of units in the course of an offensive battle on the sea coast. <p>Independent work</p> <ol style="list-style-type: none"> 1. Features of the organisation of logistics (technical) support of units in the course of an offensive battle with the forcing of water obstacles. 2. Features of the organisation of logistics (technical) support of units in the course of an offensive battle in the city. 3. Features of the organisation of logistics (technical) support of units in the course of an offensive battle at night. 4. Features of the organisation of logistics (technical) support of units in the course of counterattack.
13.	Group session	6	2	4	<p>Lesson 3. Work of the military unit's armament support services in the preparation and launch of an offensive.</p> <ol style="list-style-type: none"> 1. The sequence of work of the chief of the unit's support service in preparation for the offensive.

					<p>2. Preparing proposals on munitions and artillery-technical support to be included in the logistics support order.</p> <p>Independent work</p> <p>1. Introduction to the situation in the preparation and entry of the offensive.</p> <p>2. Drawing the general situation on a working map.</p>
14.	Group exercise	12	6	6	<p>Lesson 4. Organising the provision of munitions and artillery-technical support for a military unit in preparation for an offensive.</p> <p>1. Understanding the task.</p> <p>2. Calculation of time.</p> <p>3. Issuing preliminary orders regarding munitions and artillery-technical support.</p> <p>4. Assessment of the situation.</p> <p>Independent work</p> <p>1. Concept development and decision-making regarding munitions and artillery-technical support.</p> <p>2. Building up a partial situation on the working map.</p>
15.	Group exercise	12	6	6	<p>Lesson 5. Practice combat documents on the provision of munitions and artillery-technical support for a military unit.</p> <p>1. Concept development and decision-making regarding munitions and artillery-technical support.</p> <p>2. Reporting proposals on the organisation of munitions and artillery-technical support.</p> <p>3. Completion of planning and decision-making</p> <p>4. Preparation of a work card by the head of the support service.</p> <p>Independent work</p> <p>1. Completion of the build-up on the working map of the situation.</p> <p>2. Completion of calculations.</p>
16.	Group exercise	14	6	8	<p>Lesson 6. Practice combat documents on the provision of munitions and artillery-technical support for a military unit.</p> <p>1. Issuing the munitions and artillery-technical support order to the unit's sub-units.</p> <p>2. Organisation of command and coordination on munitions and artillery-technical support with other bodies.</p> <p>3. Preparation of a work card by the chief of the logistics service.</p> <p>Independent work</p> <p>1. Completion of the build-up on the working map of the situation.</p> <p>2. Completion of calculations.</p>
Control measures		6	6		Examination
Total for the discipline		120	60	60	

Organisation of work of the head of the support service

General purpose of the educational programme component:

As a result of studying the discipline, the student should

know:

key provisions of the governing documents on the accounting, write-off, categorisation, and storage of rocket and artillery armaments (RAA) during combat operations.

the procedure for accounting and reporting, write-off of material assets of the relevant RAA nomenclature during combat operations.

the procedure for information exchange (reporting) in the Armed Forces of Ukraine using the specialised LOGFAS software.

the procedure for organising the accounting of UAVs in the logistics information system (LIS) based on the defence resource management system (SAP).

be able to:

organise high-quality accounting and reporting of material assets of the relevant RAA nomenclature during combat operations.

organise high-quality storage and issuance of material assets of the relevant RAA nomenclature during combat operations.

organise the quality categorisation and write-off of material assets of the relevant RAA nomenclature during combat operations.

organise work with the LOGFAS software.

to organise and methodically correctly carry out the procedure for information exchange (reporting) in the Armed Forces of Ukraine using specialised LOGFAS software.

to organise and methodically correctly conduct UAV accounting in the logistics information system (LIS) based on the defence resource management system (SAP).

Organisational and methodological instructions:

The methodology for teaching the discipline is based on the basic principles of didactics (theory of justification and learning). It provides a scientific and pedagogical description of the forms and methods of teaching, indicates the most appropriate combinations of them 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 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.

In this case, depending on the need to achieve levels of knowledge or skills, the teacher should use the following methods verbal and visual;

training;

situational and cognitive.

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

The training (reproductive) method is based on performing complex actions in accordance with an algorithm (pre-established procedure) determined by the class 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 information and analytical skills.

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 exercises when the method of finding the optimal solution is determined by the class leader, but the solution is found by the student.

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

when conducting group classes:

A group lesson is a type of classroom session during which the teacher presents new educational material in a verbal and visual way, controls the students' understanding of this material by questioning them and helps to consolidate it.

Group classes are held for the purpose of detailed study by students of the issues and problems discussed in lectures and detailed consideration of topical issues of the educational material. The main teaching methods used are explanation with demonstration and discussion. Technical means of information transmission, tables, diagrams, slides, and posters should be used to ensure visualisation during the classes.

during practical classes:

A practical lesson is a type of training session during which the teacher organises the mastering of the theoretical provisions of the topic through the individual performance of specially designed tasks and promotes the formation of skills and abilities in the practical application of these theoretical provisions.

Practical exercises should be aimed at consolidating and deepening the knowledge acquired by students in group classes and during independent work, and at developing skills in solving practical problems of everyday military activities.

Logistical support:

Classes should be held in specialised classrooms, which should be equipped with personal computers, and at the training centre's training ground. It is mandatory to use technical means of training during the training sessions.

Information and methodological support:

1. “Regulations on the military (ship) economy of the Armed Forces of Ukraine” approved by the Order of the Minister of Defence of Ukraine of 16.07.1997 No. 300.
2. “Instructions on Categorisation of Missile and Artillery Weapons” approved by the Order of the Minister of Defence of Ukraine of 04.01.2019 No. 4.
3. “Instructions on the organisation of repair of rocket and artillery armaments in peacetime” approved by the Order of the Ministry of Defence of Ukraine of 16.08.2012 No. 545.
4. “Instructions on Accounting for Military Property in the Armed Forces of Ukraine” were put into effect by the Order of the Minister of Defence of Ukraine of 17.08.17 No. 440.
5. “Instruction on the Organisation of Accounting, Storage and Issuance of Small Arms and Ammunition in the Armed Forces of Ukraine” approved by the Order of the Minister of Defence of Ukraine of 29.06.2005 No. 359, as amended on 30 December 2021 No. 404.
6. “Instructions on the peculiarities of conducting an inventory of small arms, missiles and ammunition in the Armed Forces of Ukraine” was put into effect by the Order of the Minister of Defence of Ukraine of 10.01.2017 No. 16.
7. “The Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations” was enacted by the Resolution of the Cabinet of Ministers of Ukraine of 29.05.1998 No. 759.

8. “The Procedure for Write-Off of Military Property in the Armed Forces of Ukraine and the State Special Transport Service” was enacted by the Order of the Minister of Defence of Ukraine of 29.03.2021 No. 81.

9. Law of Ukraine “On the Statute of the Internal Service of the Armed Forces of Ukraine” was enacted on 24.03.1999, No. 548-XIV.

10. Law of Ukraine “On the Legal Regime of Property in the Armed Forces of Ukraine”, enacted on 21.09.1999, No. 1075-XIV.

11. Golovan A.V., Golovan V.G., Nikul S.O., Malyshkin O.V., Svyatokum K.V. Fundamentals of the theory of reliability and operation of radioactive waste. Study guide - Odesa: VA, 2019. 270 c.

Information resources

1. Website of the Military Academy (Odesa). www.vaodessa.org.ua.
2. Electronic library of the Military Academy (Odesa) (internal network). <http://192.168.1.254/>.
3. Electronic library of the Department of Missile and Artillery Armament (internal network of the Military Academy (Odesa)). <http://192.168.1.254/index.php/kafedra-rao>.
4. Website of the Ministry of Defence of Ukraine. <http://www.mil.gov.ua/>.

Titles of topics and allocation of class time by type of training

№ n/a	Types of training sessions, control measures	Total hours	Of which.		Topic, purpose and objectives of the training session, study questions
			Training classes	Independent work	
1	2	3	4	5	6
					Section 1. Organisation of accounting, categorisation and write-off of military property (RAA) in a military unit.
		15	6	9	Topic 1. Organisation of accounting of military property (RAA) in a military unit.
1.	Lecture	5	2	3	<p>Lesson 1. The task and structure of the rocket and artillery service.</p> <p>1. The purpose and objectives of studying the discipline, its role and place in the system of training a specialist in rocket and artillery armaments.</p> <p>2. Organisational and staffing structure of the brigade support service, job responsibilities of service personnel.</p> <p>3. The main guiding documents regulating the activities of the service for the organisation of accounting, categorisation, write-off and storage.</p> <p>Independent work</p> <p>1. General provisions of the Instruction on Accounting for Military Property in the Armed Forces of Ukraine (Order of the Ministry of Defence of Ukraine of 17.08.2017 No. 400).</p> <p>2. Peculiarities of accounting for military property in military units engaged in combat operations.</p>
2.	Group session	5	2	3	<p>Lesson 2. General provisions on the organisation of accounting for weapons and munitions in a military unit.</p> <p>1. General provisions on the organisation of accounting in a military unit.</p> <p>2. Types of accounting documents kept in the support service.</p> <p>Independent work</p> <p>General Provisions of the Instruction on Accounting for Military Property in the Armed Forces of Ukraine (Order of the Minister of Defence of Ukraine No. 400 of 17.08.2017)</p> <p>1. Auxiliary accounting documents.</p>
3.	Group session	5	2	3	<p>Lesson 3. Organisation of accounting for weapons and munitions in a military unit.</p> <p>1. Organisation of accounting in the support service of a military unit.</p> <p>2. Organisation of accounting in the warehouse of a military unit.</p> <p>3. Organisation of accounting in the units of the military unit.</p>

					Independent work 1. Regulations on the organisation of military property accounting in the Armed Forces of Ukraine. 2. Peculiarities of accounting for rocket and rocket-artillery weapons, equipment and property. section 15 of the order of the Minister of Defence of Ukraine of 17.08.17 № 440 .
4.	Practical session	5	2	3	Lesson 5. Maintaining accounting documents for radioactive waste in the military unit support service. 1. Maintaining primary accounting documents for radioactive waste accounting in the military unit's radioactive waste service. 2. Maintaining accounting registers (books and accounting cards) for radioactive waste accounting in the military unit's radioactive waste service. Independent work Regulations on the organisation of military property accounting with the use of automation. 1. Organisation of military property accounting with the use of automation. Section 7 of the Order of the Minister of Defence of Ukraine dated 17.08.17 No. 440.
		27	12	15	Topic 2. Organisation of military property accounting during combat operations, participation in anti-terrorist operations, international peacekeeping and security operations.
5.	Group session	5	2	3	Lesson 1. Accounting for military property in military units engaged in combat operations. 1. Procedure and peculiarities of accounting for military property in military units engaged in combat operations 2. Peculiarities of accounting for military property at military warehouses of troops (forces) engaged in combat operations. Independent work 1. Peculiarities of accounting for military property in the support services of military command and control bodies of troops (forces) engaged in combat operations.
6.	Group session	5	2	3	Lesson 2. Peculiarities of accounting for small arms and ammunition in military units during combat operations. 1. The procedure for echeloning and accumulation of missiles and ammunition to the established norms during hostilities. 2. Organisation of accounting for small arms and ammunition in a brigade at battalion and company strongholds during combat operations. Independent work 1. Peculiarities of storage of small arms, ammunition and hand grenades during hostilities, anti-terrorist operation and Joint Forces Operation Order of the Ministry of Defence of Ukraine of 29 June 2005 No. 359, as amended on 30 December 2021 No. 404.
7.	Group session	2	2		Lesson 3. Procedure for keeping records of missiles and ammunition in units of a military unit during combat operations. 1. Procedure for keeping records of missiles and ammunition at battalion ammunition points.

					2. Procedure for keeping records for the issue of missiles and ammunition at company and platoon support points (ammunition points).
8.	Practical session	5	2	3	<p>Lesson 4. Maintaining records for the issue of missiles and ammunition in military units during combat operations.</p> <p>1. Maintaining primary documents for the issuance of missiles and ammunition at battalion ammunition points.</p> <p>2. Maintaining records for the issue of missiles and ammunition at company strongholds (ammunition points).</p> <p>Independent work</p> <p>1. Maintaining primary documents for the issuance of missiles and ammunition at battalion ammunition points.</p> <p>2. Maintaining records for the issue of missiles and ammunition at company and platoon support points (ammunition points).</p>
9.	Group session	5	2	3	<p>Lesson 5. Peculiarities of accounting for trophy military property collected on the battlefield.</p> <p>1. Peculiarities of accounting for trophy property collected in combat areas,</p> <p>2. Peculiarities of accounting for property received as international aid, from volunteer organisations, as charity, humanitarian aid.</p> <p>Independent work</p> <p>1. Peculiarities of accounting for property collected on the battlefield and received with the wounded (sick) to the medical units of the military unit.</p>
		18	12	6	Topic 3: Organisation of categorisation of military property.
10.	Group session	5	2	3	<p>Lesson 1. Categorisation of rocket and artillery armaments.</p> <p>1. Basic provisions for the categorisation of rocket and artillery armaments.</p> <p>2. Categorisation of artillery weapons. Categorisation of artillery barrels.</p> <p>Independent work</p> <p>1. General provisions of the Instruction on the procedure for categorising rocket and artillery armaments Order of the Minister of Defence of Ukraine of 04.01.2019 № 4.</p>
11.	Group session	2	2		<p>Lesson 2. Categorisation of ammunition, missiles and spare parts.</p> <p>1. The procedure for categorising ammunition.</p> <p>2. The procedure for categorising missiles and spare parts.</p>
12.	Practical session	4	4		<p>Lesson 3. Transfer of weapons from one category to another.</p> <p>1. Transfer of numbered artillery weapons from one category to another.</p> <p>2. Transfer of military-technical property of the Central Rocket and Artillery Directorate of the Armed Forces of Ukraine nomenclature from one category to another.</p>
13.	Practical session	5	2	3	<p>Lesson 4. Transfer of missiles and ammunition from one category to another.</p> <p>1. Transfer of missiles from one category to another.</p> <p>2. Transfer of ammunition from one category to another.</p>

					Independent work Preparation for the differential test.
14.	Control measures	2	2		Differential assessment
			10	15	Topic 4. Organisation of military property write-off.
15.	Group session	5	2	3	Lesson 1. Organisation of write-offs of material assets in the Armed Forces of Ukraine. 1. General provisions on the organisation of write-offs from the accounting of material assets in the Armed Forces of Ukraine. 2. Organisation of write-off of material assets in the Armed Forces of Ukraine. Independent work 1. General provisions on the procedure for writing off material and cash assets in the Armed Forces of Ukraine (Order of the Ministry of Defence of Ukraine of 29.03.2021 No. 81).
16.	Group session	5	2	3	Lesson 2. Organisation of write-offs from the accounting of material assets on the basis of an inspector's certificate. 1. General requirements for the procedure for writing off material assets from the accounting of material assets on the inspector's certificate. 2. The general algorithm for writing off military property with an inspector's certificate. 3. Documents required to obtain an inspector's certificate. Independent work 1. General provisions on the procedure for writing off material and cash assets in the Armed Forces of Ukraine (Order of the Ministry of Defence of Ukraine of 29.03.2021 No. 81).
17.	Group session	5	2	3	Lesson 3. Procedure for writing off material assets from the accounting of material assets on the basis of an inspector's certificate. 1. Procedure for officials to act when writing off material assets on an inspector's certificate. 2. The procedure for conducting an internal investigation. Independent work 1. Legislative and regulatory framework governing the procedure for writing off military property on the basis of an inspector's certificate.
18.	Group session	5	2	3	Lesson 4. Write-off of material assets from the accounting of material assets on the basis of an inspector's certificate. 1. The procedure for forming the order of the commander of the military unit on the results of the investigation. 2. Preparation of materials for obtaining an inspector's certificate and further actions. 3. Submission of documents for approval of the inspector's certificate. Independent work

					1. Making a write-off of material and cash assets. 2. Preparation and execution of documents for write-off.
19.	Practical session	2	2	3	Lesson 5. Registration of write-offs from the accounting of material assets on the basis of an inspector's certificate. 1. Preparation of an application for the issuance of an inspector's certificate. 2. Registration and approval of an inspector's certificate. Independent work 1. Legislative and regulatory framework governing the procedure for writing off military property on the basis of an inspector's certificate.
		9	6	3	Topic 5. Organisation of write-off of military property during combat operations.
20.	Group session	2	2		Lesson 1. Organisation of write-off of expended military property under the legal regime of martial law. 1. General provisions on the procedure for writing off material and cash assets in the Armed Forces of Ukraine under the legal regime of martial law. 2. Procedure for writing off all types of missiles expended in the course of military (combat) operations. 3. The procedure for writing off munitions used in the course of military (combat) operations. Independent work 1. General provisions on the procedure for writing off material and cash assets in the Armed Forces of Ukraine under the legal regime of martial law.
21.	Group session	5	2	3	Lesson 2. Organising the write-off of lost military property during combat operations. 1. The procedure for writing off spent shell casings for artillery and small arms ammunition lost in the course of military (combat) operations. 2. Procedure for writing off special containers of all types of missiles (shots) lost in the course of military (combat) operations.
22.	Practical session	5	2	3	Lesson 3. Write-off of military property under the legal regime of martial law. 1. Writing off all types of missiles during hostilities. 2. Write-off of munitions consumed during hostilities. 3. Write-off of fired cartridge cases for artillery and small arms ammunition, special containers of all types of missiles (shots) lost during hostilities. Independent work Preparation for the differential test.
		26	14	12	Topic 6. Keeping records of UAVs in the logistics information system (LIS) based on the defence resource management system (SAP).
23.	Lecture	5	2	3	Lesson 1. Software tools for accounting for logistical assistance from NATO partner countries to Ukraine. 1. The main processes of data exchange on logistical assistance from NATO partner countries to Ukraine. 2. Specialised software LOGFAS: purpose, capabilities and tasks to be solved.

					3. Procedure for information exchange (reporting) in the Armed Forces of Ukraine using the specialised LOGFAS software. Independent work 1. Definition of logistics according to NATO standards, basic guiding documents. 2. NATO logistics doctrine, planning and management concepts.
24.	Lecture	5	2	3	Lesson 2: Overview of the specialised software LOGFAS. 1. Create, edit and delete databases (LOGFAS Connection Manager (LCM) module). 2. Working with geographic data (Geographic Manager (GEOMAN) module). 2. Working with non-geographic data (LOGFAS DATA MANAGER (LDM) module). Independent work 1. Purpose, tasks to be solved, set of tools. 2. The structure of accounting for material and technical assistance in the Armed Forces of Ukraine.
25.	Group session	5	2	3	Lesson 3: Organisation and types of property receipt in a military unit. 1. UAV accounting system based on SAP. 2. Remote training portal 3. Reference book of materials in the system 4. Receipt of property by order 5. Receipt of property without an order. 6. Report “List of documents of materials” Independent work 1. Study general information about the course of study.
26.	Practical session	7	4	3	Lesson 4. Registration of property in a military unit. 1. Receipt of property by orders. 2. Receipt of property without an order. 3. Movement of property between warehouses (type of movement 311, 201, YC1) 4. Formation and release of property Independent work Preparation for the exam.
Control measures		4	4		Examination
Total for the discipline		120	60	60	

Military leadership

The general purpose of the discipline (subject of study)

The purpose of teaching the discipline “Military Leadership: Leader's Influence on the Team” is: to teach students the techniques of leadership communication, formation of culture and moral and psychological climate, organisation of interaction, problem solving, implementation of changes, prevention and counteraction to destructive behaviour and the effects of combat stress in order to maintain a combat-ready team to ensure the performance of tasks during service as tactical level officers.

Based on the results of studying the discipline, the student should

know:

principles and essence of team leadership;
 experience (mistakes and best practices) in supporting combat-ready teams;
 communication techniques and leader's influence on the team;
 principles of organising team interaction;
 techniques for solving problems and implementing changes in the team;
 factors, mechanisms of action and manifestations of combat stress;
 techniques for maintaining and restoring team combat capability;
 manifestations of deviant and/or toxic behaviour and actions of the leader in order to prevent, control and neutralise them.

be able to:

analyse, synthesise and adapt to the needs of the team the experience of the team(s) in combat operations;
 to form and maintain the moral and psychological climate and culture in the team necessary for the performance of tasks;
 organise interaction between leaders and members of the team(s);
 make non-standard decisions in order to ensure the completion of the task and prevent/minimise losses in the team;
 conduct command and combat briefings;
 plan and implement changes in the team;
 control the impact and manifestations of combat stress, support and restore the team during combat operations and after leaving the mission area;
 prevent and counteract the destructive behaviour of team members and other individuals who may have an impact on the team.

Organisational and methodological instructions

The discipline is designed to develop the level of knowledge and skills necessary for the students to achieve the goal, mission, values of a military leader and further development and self-improvement on the path of military leadership.

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

The educational material provided for studying 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 classrooms under the guidance of a research and teaching staff member.

During all forms of classes, active teaching methods, individual, group and frontal methods of knowledge control are used.

Frequency and peculiarities of current control, general procedure for determining the grade for current control

An integral part of the professional military education courses for officers of the Armed Forces of Ukraine is a system of control and reporting on the quality of learning. The main purpose of the control is to ensure the scientific level of the acquired knowledge and the strength of the skills and abilities developed.

The following control methods are used in teaching the discipline:

entrance control;
current control;
self-control;
final control.

The number of control measures, forms of their implementation, frequency are communicated to students at the beginning of the discipline.

Entrance control is carried out before the study of the discipline in order to study the level of training of course students and make changes to the content of educational issues that will be considered during the class.

Current control is carried out by teachers at all types of classes in the form of oral questioning, written express control during classes, including electronic questionnaires in various forms by decision of the academic staff (instructor) - the head of the classes.

The main purpose of the current control is to provide feedback between teachers and students in the learning process. It checks the students' readiness to complete the next learning tasks, as well as managing their learning motivation. The information obtained during the current control is used to adjust the methods and means of teaching, as well as for students' independent work.

The results of the current control are recorded in the classroom record book and are used and taken into account during the final control.

Self-assessment is intended for students to self-assess the quality of learning material on a specific topic of the discipline. Self-control is carried out in the form of control questions on the topic or testing on a computer.

The final control is carried out in the form of a differentiated test in the amount of educational material determined by the programme of the discipline.

When studying a discipline in the distance learning mode, students are assessed for the discipline as a whole based on the performance of a test, the assessment of which affects the further direct study of students in courses at a higher military educational institution.

When taking courses directly at a higher military education institution, students who have completed the full course of study provided for by this programme are allowed to take differentiated tests.

To conduct differentiated assessments, an examination board is appointed by the order of the Head of the Academy, which includes academic staff of the Military Academy who have taught this discipline.

Logistical support

The following teaching aids should be used during the classes: classrooms, Internet (or local network), computer classes, multimedia equipment, visual teaching aids, writing materials, distance learning platforms, electronic manuals, questionnaires and personal gadgets (smartphones, tablets, laptops, etc.) by the decision of the academic staff member - the head of the classes.

Information and methodological support

1. The Doctrine of Military Leadership in the Armed Forces of Ukraine, approved by the Chief of the General Staff of the Armed Forces of Ukraine on 22.01.2024 No. 369.
2. Strategy for the Development of Military Leadership in the Armed Forces of Ukraine: approved by the Commander-in-Chief of the Armed Forces of Ukraine on 17.11.23. No. 325 of the Commander-in-Chief of the Armed Forces of Ukraine of 17.11.2023.
3. Doctrine on the Study and Implementation of Military Experience in the Armed Forces of Ukraine. VKP 7-00(01).01: approved by the Chief of the General Staff of the Armed Forces of Ukraine of 30.06.2020.
4. On Approval of the Instruction on Assessment of the Level of Authority and Leadership of Commanders (Chiefs) in the Armed Forces of Ukraine: Order of the General Staff of the Armed Forces of Ukraine of 05.07.2018. №249.

Joint Military Sources (NATO).

5. Military Leadership: Competence, Confidence, Flexibility. FM 6-22 (FM 22-100). Kyiv: KNT, 2023. 280 c.
6. Army Leadership and The Profession ADP 6-22, July, 2019.
7. Army Team Building. ATP 6-22.6, 2015.
8. Building Cohesive and Adaptive Teams Small Unit Leader Training Aid.
9. Building Cohesive Teams. US Army Combined Arms Centre.
10. Leader Development. FM 6-22, November, 2022.
11. Mission and Command. Command and Control of Armed Forces. ADP 6-0, July, 2019

Books

12. Boyko O.V. Theory and methodology of formation of leadership competence of officers of the Armed Forces of Ukraine: monograph / O.V. Boyko. Zhytomyr: O.O. Yevenok Publishing House, 2020. 667 c.
13. Bryce G. Red Team / translated from English by Ulyana Kurganova. Kharkiv: Fabula, 2020. 256 c.
14. Great Explanatory Dictionary of the Modern Ukrainian Language: 250000 / compiled and edited by V. T. Busel. Kyiv; Irpin: Perun, 2005. VIII, 1728 p.
15. Willink D., Bebin L. Absolute responsibility. Leadership lessons from Navy SEALs. Kyiv: Knigolav, 2020. 400 c.
16. Willink D. Strategy and Tactics of Leadership / translated from English by L. Pylaeva. Kyiv: Book Chef, 2021. 368 c.
17. Zelinsky A. Anatomy of a Warrior: Spirit, Way, Power. Kyiv: Circle of Life, 2023. 215 c.
18. McChrystal, S., Collins, T., Silverman, D., Fassell, K. Team of Teams. New rules of interaction in a complex world / translated from English by A. Zhyshchynska. Dnipro: Monolith, 2018. 384 c.

Information resources

19. Every victory is a team achievement. TEDxUCU.
20. Joko Willink Retired U.S. Navy SEAL. Podcaster. Author Leadership. Instructor. Entrepreneur <https://jocko.com/>
21. McChrystal S. Listen, learn ... then lead. TED
22. Military leadership. YouTube.
23. Military television of Ukraine. The warrior is me!
24. Distance learning platform "Ukrainian Centre for Military Leadership".

25. Dictionary of foreign language words.
26. Feature film "Miracle" (USA, 2004).
27. The feature film Rage (USA, 2014).
28. The feature film Against the Sun (USA, 2014).
29. The Strike Force feature film (USA, 2019).
30. Feature film Survivor (USA, 2013).
31. Feature film "Outpost" (Bulgaria, USA, 2020).

Types, topics of classes and study questions

№ n/a	Types of classes, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Training classes	Independent work	
1	2	3	4	5	6
		12	6	6	Topic 1. Leadership experience in combat-ready teams.
1.	Group session	4	2	2	Lesson 1. Experience of combat-ready teams. 1. Positive and negative experiences of combat-ready teams and their leaders. 2. Conclusions and lessons learnt. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
2.	Group session	4	2	2	Lesson 2. Study and assimilation of lessons learned from the experience of combat-ready teams. 1. Learning the lessons of implementing the experience of combat-ready teams. 2. Learning the lessons of implementing the experience of combat-ready teams. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
3.	Practical session	4	2	2	Lesson 3. Tools for systematising experience. 1. Reporting on the lessons learnt and lessons learned from the implementation of the experience of combat-ready teams. 2. Tools for automating reporting on the implementation of the experience of combat-ready teams. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
		12	6	6	Topic 2. Formation of a moral and psychological climate in a combat-ready team.
4.	Practical session	4	2	2	Lesson 1. Techniques of leader's influence on a combat-ready team. 1. Techniques of direct (personal) influence of the military leader on the personnel. 2. Techniques of organisational interaction of a military leader with a combat-ready team. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
5.	Group session	4	2	2	Lesson 2. Prevention of addictions and deviant behaviour in a combat team by a military leader. 1. Algorithms (procedures) for the prevention of alcoholism and drug addiction.

					2. Counteracting manifestations of deviant behaviour. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
6.	Group session	4	2	2	Lesson 3. Military leader's counteraction to manifestations of toxic behaviour in a combat-ready team. 1. Character traits and manifestations of toxic behaviour of military personnel. 2. Counteracting manifestations of toxic behaviour of military personnel. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
		10	4	6	Topic 3. Military leader's support of a combat-ready team.
7.	Group session	5	2	3	Lesson 1. Actions of a military leader to support a combat-ready team. 1. Actions of a military leader in preparation for use (performing assigned tasks). 2. Use of positive role models by the military leader to support the combat capability of the team. 3. Key issues of supporting a combat-ready team by a military leader (assessment of the level of team development). Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
8.	Group session	5	2	3	Lesson 2. Supporting a combat-ready team by a military leader in combat conditions. 1. Factors that affect the cohesion and activity of a combat team at the stage of "Support" of a combat team. 2. Actions of a military leader during combat missions (cases "Abandonment of positions" / "Change of leader"). 3. Actions of personnel and changes in activities in combat conditions at the "Support" stage of the combat team. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
		12	6	6	Topic 4. Team leadership in a military unit.
9.	Group session	4	2	2	Lesson 1. Problems of team leadership in a military unit. 1. Principles and essence of command leadership in a military unit. 2. Factors and problematic issues of team leadership in a military unit. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
10.	Group session	4	2	2	Lesson 2. Organisation of interaction between military leaders in the chain of command. 1. The essence of interaction between military leaders in the chain of command: maintaining a balance of subordination and unity of command. 2. Techniques of interaction between "junior" and "senior" military leaders. Independent work 1. Watching video cases (based on interviews with military leaders) and reading books on the topic.
11.	Group session	4	2	2	Lesson 3. Interaction between military leaders of combat-ready teams. 1. The essence of the relationship of military leaders in "horizontal" interaction.

					<p>2. Techniques of “horizontal” interaction of military leaders based on combat experience.</p> <p>3. Organisation of interaction between combat-ready “teams of teams”.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
		12	6	6	Topic 5. Formation of a corporate culture in a combat-ready team by a military leader.
12.	Practical session	4	2	2	<p>Lesson 1. Internal communications of a military leader.</p> <p>1. Methodology “Commander's briefing” (satisfaction of the information needs of the personnel by the military leader).</p> <p>2. Methodology “Combat informing” (interpretation of BN / BR, taking into account the information needs of personnel).</p> <p>3. Delivering a motivational speech by a military leader on a relevant topic.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
13.	Practical session	4	2	2	<p>Lesson 2. External communications of a military leader.</p> <p>1. Interaction of the military leader with the media (briefing, interview, message).</p> <p>2. Principles and essence of interaction between a military leader and a chaplain.</p> <p>3. Solving problematic issues of interaction between a military leader and chaplains.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on a specific topic.</p>
14.	Group session	4	2	2	<p>Lesson 3. Gender, ethnicity and cross-cultural aspects in a combat-ready team.</p> <p>1. Gender aspects in a combat-ready team.</p> <p>2. Ethnic aspects of teamwork in a military unit.</p> <p>3. Cross-cultural aspects of teamwork in a military unit.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
		14	6	8	Topic 6. Implementation of changes in a combat team by a military leader.
15.	Group session	4	2	2	<p>Lesson 1. Initiating changes in a combat-ready team.</p> <p>1. The meaning of changes in a combat-ready team.</p> <p>2. The essence of the change initiative in a combat-ready team: why, when and how to implement them.</p> <p>3. Brainstorming: “What changes are appropriate in the tactical and operational chain of command?”</p> <p>Individual work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
16.	Group session	6	2	4	<p>Lesson 2. Techniques for a military leader to implement change in a combat team.</p> <p>1. Technique: “How to succeed as a newly appointed military leader”.</p> <p>2. Technique “Iterative decision-making”.</p> <p>3. Technique: “Decentralised command”.</p> <p>4. Technique: “Using leadership opportunities to train, develop and sustain a combat-ready team”.</p> <p>5. Technique: “Eliminate the negative approach”.</p>

					<p>6. Technique: “Teaching modesty”.</p> <p>7. Technique: “Building and restoring leaders' self-confidence”.</p> <p>8. Technique: “Educating high-level team players”.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
17.	Group session	4	2	2	<p>Lesson 3. Red Team military leadership techniques for achieving productive change.</p> <p>1. Out-of-the-box thinking of “Red Teams” to generate changes in the unit (the essence and psychology of “Red Teams”).</p> <p>2. Techniques of solving problems of the unit by “Red Teams”, imaginative techniques.</p> <p>3. Analytical methods of applied critical thinking in “Red Teams”.</p> <p>4. Rules of operation of “Red teams”.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
		16	8	8	Topic 7. Control of combat and operational stress in a combat-ready team by a military leader.
18.	Group session	4	2	2	<p>Lesson 1. Factors of combat stress and consequences of its impact on the combat capability of the team.</p> <p>1. Combat stress, factors of its occurrence (combat stressors).</p> <p>2. Brainstorming: “Signs and consequences of combat stress on the combat capability of the team” (based on examples of combat experience).</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
19.	Practical session	4	2	2	<p>Lesson 2. Formation of stress resistance of a combat-ready team by a military leader.</p> <p>1. Creation of a matrix (table) for modelling the factors of the combat situation in the process of preparing for combat missions (based on standards and norms of combat training).</p> <p>2. Techniques for a military leader to develop the stress resistance of individual soldiers and the team as a whole.</p> <p>Independent work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
20.	Practical session	4	2	2	<p>Lesson 5. Control of combat and operational stress by a military leader in a combat-ready team.</p> <p>1. Experience of military leaders in controlling combat and operational stress.</p> <p>2. Algorithm for controlling combat and operational stress by a military leader in the process of performing assigned tasks (based on the example of combat situation cases).</p> <p>Individual work</p> <p>1. Watching video cases (based on interviews with military leaders) and reading books on the topic.</p>
21.	Group session	4	2	2	<p>Lesson 7. Restoration of the team's combat capability by the military leader after the impact of combat stressors.</p> <p>1. Experience of military leaders' recovery from combat stressors.</p> <p>2. Algorithm of restoration by a military leader of a team after the impact of combat stressors (on the example of restoring combat capability).</p>

				Independent work 1. Preparation for a differentiated test.
Control measures	2	2		Differentiated test
Total for discipline	90	44	46	

Operation management of ground-based weapon systems

General purpose of the educational programme component:

The general purpose of the discipline (subject of study):

As a result of studying the discipline the student should

know:

the main provisions of the guidelines for the organisation of maintenance and repair of weapons;

the procedure for accounting and reporting, write-off of material assets used during the operation of weapons;

the procedure for organising and carrying out maintenance of weapons, armoured and motor vehicles;

the procedure for organising and conducting maintenance of trailed guns, mortars and self-propelled artillery pieces, armoured and motor vehicles.

be able to:

organise high-quality accounting, storage, issuance and write-off of material assets of the relevant nomenclature;

plan, organise and supervise the restoration and maintenance of ground weapons systems;

organise the maintenance of ground-based weapons systems;

be aware of current trends in the development of ground-based weapons systems.

Organisational and methodological instructions:

The methodology of teaching the discipline is based on the basic principles of didactics (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 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.

In this case, depending on the need to achieve levels of knowledge or skills, the teacher should use the following methods

verbal and visual;

training;

situational and cognitive.

The verbal-visual method, in which the teacher systematically and consistently presents the educational material, shows (demonstrates) the subjects studied to obtain new knowledge and form the appropriate imagination.

The training (reproductive) method is based on performing complex actions in accordance with an algorithm (pre-established procedure) determined by the class 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 information and analytical skills.

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 in group exercises when the method of finding the optimal solution is determined by the class leader, but the solution is found by the student.

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

during lecture classes:

The lecture is the main type of classroom teaching intended for mastering the theoretical material of the topic.

The main purpose of the lecture is to systematise the basis of scientific knowledge and practical experience on the topic, the state and prospects of development of management science, theory and practice of management activities of a military leader, to focus on the most complex and nodal issues of the educational material. The lecture should be problem-based, stimulate active cognitive activity of students, and promote creative thinking. In order to enhance the cognitive activity of servicemen and to develop their creative thinking, technical teaching aids should be skilfully used during lectures in combination with active forms and methods of lecturing. Classes should be conducted using the method of oral presentation of educational material, with individual questions and educational elements worked out in the form of a dialogue between the teacher and the students and by asking them problematic questions.

during group lessons:

A group lesson is a type of training session during which the teacher presents new educational material in a verbal and visual way, controls the students' understanding of this material by questioning and helps to consolidate it.

Group classes are held for the purpose of detailed study by students of the issues and problems discussed in lectures and detailed consideration of topical issues of the educational material. The main teaching methods used are explanation with demonstration and discussion. Technical means of information transmission, tables, diagrams, slides, film and posters should be used to ensure visualisation during the classes.

during practical classes:

Practical training is a type of training session during which the teacher organises the mastering of the theoretical provisions of the topic through individual performance of specially designed tasks and promotes the formation of skills and abilities in the practical application of these theoretical provisions.

Practical classes should be aimed at consolidating and deepening the knowledge acquired by students in lectures and group classes, as well as during independent work, and developing their skills in solving practical problems in their speciality.

during the organisation of independent work:

Independent work should be carried out with the aim of working out and mastering the educational material; consolidation and deepening of knowledge, skills and abilities; preparation for the next classes and control measures; formation of a culture of mental work, independence and initiative in the search, acquisition and enrichment of knowledge among students.

Independent work should be provided with educational literature, study guides, assignments and methodological recommendations. All teaching and learning materials should have electronic versions. Methodological materials for independent work should provide for the possibility of self-control.

Material and technical support:

Classes should be held in specialised classrooms, which should be equipped with samples of ground-based weapons systems. It is mandatory to use technical training aids during the training sessions.

Information and methodological support:

1. Law of Ukraine “On Defence of Ukraine”.
2. National Security Strategy of Ukraine: approved by the President of Ukraine on 26.05.2015. Decree of the President of Ukraine of 26.05.2015 No. 287/2015.
3. Military Doctrine of Ukraine: approved by the Decree of the President of Ukraine of 24.05.2015. Decree of the President of Ukraine of 24.09.2015 No. 555/2015.
4. Strategic Defence Bulletin of Ukraine: enacted by the Decree of the President of Ukraine of 06.06.2016 No. 240/2016.
5. Minasov V.S., Rudyi O.Y. Application of military repair bodies in combat conditions: a textbook. Odesa: 2001. 144c.
6. Application of units and military units of technical support. PART I: Technical support units: a textbook / Ovcharenko I.V. et al. ed. by S.A. Kopashynskiy Kyiv: Ivan Cherniakhovskiy National University, 2017. 136 c.
7. The use of units and military units of technical support. PART II: Repair and restoration military unit: textbook / Ovcharenko I.V. et al. ed. by S.A. Kopashynskiy Kyiv: Ivan Cherniakhovskiy National University, 2018. 80 c.
8. Production and repair of rocket and artillery weapons. Part 1.
9. Production and repair of rocket and artillery systems. Part 1.
10. State Standard 2. 601-68. State Standard 2. 6065-68. Unified system of design documentation. Operational and repair documentation.
11. Product 2A29. Manual for medium repair of 2A29 RS.
12. Kasin M.E. Handbook of the specialist of the production unit for the repair of weapons.
13. Kutsopalo V.S. Fundamentals of the general technology of weapons repair.
14. Kutsopalo V.S. Fundamentals of production organisation at weapons repair enterprises.
15. Kutsopalo V.S. Handbook on weapons repair.
16. Nazaretov G.B. Fundamentals of organisation and general technology of artillery weapons repair.
17. Fundamentals of the technology of repair of artillery weapons parts / A.B. Balashkin, A.D. Bepakhotnyi, V.D. Sviridov, N.P. Fadeev, A.L. Shekhobalov.

18. General guide to the repair of rocket and artillery weapons. Part 3. Repair of artillery guns, small arms and melee weapons.
19. Maintenance and repair of artillery weapons / A.S. Abdulin, K.V. Salukvadze, B.M. Shakhmametiev / Edited by K.V. Salukvadze.
20. 122-mm Howitzer 2A31. Technical description and instruction manual 2A31 T.O.
21. Operation Manual for Military Calibres and Instruments.
22. Operation manual for radioactive waste. Part1.
23. Guidelines for organising the work of repair bodies of units and formations.
24. The use of military repair bodies in combat conditions. Study guide. V.S. Minasov, O.Y. Rudyi. Odesa - 2001. 144 p.
25. Fundamentals of the theory of reliability and operation of rocket and artillery weapons. Study guide. OOLISV. - 2018. 272 p.
26. Order of the Ministry of Defence of Ukraine of 4 January 2019 No. 4 “On Approval of the Instruction on the Procedure for Categorisation of Rocket and Artillery Weapons”.
27. MoD Order No. 17 of 12.01.2015 “Procedure for Writing Off Military Property in the Armed Forces of Ukraine”.
28. Guidelines for the organisation of operation and storage of alkaline batteries used in radioactive waste samples, part 1. 1990. Approved by the deputy commander of military unit 64179 on 26.03.86.
29. Resolution of the Cabinet of Ministers of Ukraine of 27.08.2003 No. 1359 “On Amendments to the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations”.
30. 30 mm automatic gun. Technical description. 2A42. MAINTENANCE MANUAL. - K.: Varta, 2004.
31. 73-mm gun 2A28 “Thunder”. Technical description.
32. Maintenance of small arms. Study guide. - Odesa: Military Academy, 2018.
33. DSTU V 3576-97. Operation and repair. Terms and definitions. - Kyiv: Standards Publishing House, 1998.
34. DSTU 2860-94. Reliability of equipment. Terms and definitions. - K.: Standards Publishing House, 1998.
35. Fundamentals of operation of military vehicles: Study guide / Nikishyn V.A., Kuprinenko O.M., Berezensky R.V., Melenchuk V.M. - Odesa: Military Academy, 2014. 170 p.
36. Guidelines for unified workshops for maintenance and current repair of vehicles and tracked vehicles (MTO-AT, MTO-4 OS, MTO-ATG).
37. Methodological recommendations for establishing and determining the operating time (service life) standards for the repair and write-off of motor vehicles and motor vehicle property.
38. Order of the Minister of Defence of Ukraine No. 115 of 11.05.95. On the provision of motor vehicles with spare parts and accessories and the provision of military units with park equipment.
39. Order of the Minister of Defence of Ukraine No. 678 of 12.12.16 on approval of the Instruction on the Procedure for the Use of Motor Vehicles in the Ministry of Defence of Ukraine and the Armed Forces of Ukraine.
40. Order of the Minister of Defence of Ukraine No. 548 of 17.08.12 “On Approval of Amendments to the Regulations of the Road Safety Authorities of the Ministry of Defence of Ukraine”. Resolution of the Cabinet of Ministers of Ukraine of 30.11.11 No. 1225 “On Approval of the Procedure for Mandatory Technical Control of Vehicles of the Armed Forces of Ukraine”.
41. Methodological recommendations on the preparation and use of units and subdivisions during the ATO No. 1390/restricted.
42. Priority measures to improve the technical support and conditions of the ATO No. 1406/1 restricted.
43. Instruction on the automotive service of the Armed Forces of Ukraine.

44. Methodological recommendations on the placement and fixing of weapons and military equipment on railway rolling stock for transportation in echelons and transports, approved by the Commander of the Land Forces of the Armed Forces of Ukraine.

45. Order of the Minister of Defence of Ukraine No. 595 of 05.09.2013 on approval of the Regulation on military transportations by rail, sea, river and air.

46. Directive No. 7 of the Deputy Minister of Defence for Armaments and Chief of the Armed Forces of Ukraine of 1 August 2000 “Methodological recommendations to officers of armoured services on the procedure for inspection and assessment of armoured weapons and equipment and technical training in formations and units”.

47. Information and analytical materials on the use of military units in the Anti-Terrorist Operation, 2014-2024.

48. Guidelines for planning training in the Armed Forces of Ukraine. Approved by the Chief of the General Staff of the Armed Forces of Ukraine, 2024.

49. Methodological Recommendations on the Protection of Troops (Forces) and Military Objects at Permanent Dislocation Points and in Areas (Places) of Assigned Tasks. Kyiv: General Staff of the Armed Forces of Ukraine, 2014.

50. Recommendations on strengthening the protection of military convoys from the use of landmines. Kyiv: General Staff of the Armed Forces of Ukraine, 2014.

51. Experience in the use of armed forces. How to fight guerrillas, terrorists and little green men. American experience. Kyiv: General Staff of the Armed Forces of Ukraine, 2014.

52. Study guide. Operation of armoured vehicles, parts 1, 2 and 3. Section - Technical specifications.

Information resources

1. Website of the Military Academy (Odesa). www.vaodessa.org.ua.

2. Electronic library of the Military Academy (Odesa) (internal network). <http://192.168.1.254/>.

3. Electronic library of the Department of Missile and Artillery Armament (internal network of the Military Academy (Odesa)). <http://192.168.1.254/index.php/kafedra-rao>.

4. Website of the Ministry of Defence of Ukraine. <http://www.mil>.

Types, topics of training sessions and study questions

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
		75	38	37	Section 1. Organisation of repair and maintenance of weapons.
		22	12	10	Topic 1. Organisation of repair and maintenance.
1.	Lecture	2	2		Lesson 1. 1. The purpose, objectives, main content and subject of the discipline. Its role and place in the training of a specialist in the missile and artillery weapons service. 2. Basic provisions for the organisation of operation and repair. Guidance documents.
2.	Group session	2	2		Lesson 2. General concepts of repair and maintenance organisation. 1. Receiving, issuing and storing weapons in need of repair, accounting and reporting. 2. Organisation of labour and safety measures.
3.	Group session	7	4	3	Lesson 3. Planning the work of repair bodies. 1. Calculation of the working time fund and work plan. 2. The procedure for drawing up a work schedule. Independent work. 1. Scheme of planning work on maintenance and repair of weapons. 2. Planning of work in repair bodies.
4.	Group session	7	4	3	Lesson 4. Network planning in the organisation of maintenance and repair of weapons. 1. General concepts of network planning. 2. Methods of calculating network planning. Independent work. 1. The concept of repair time reserve and work intensity index. 2. Analysis of network schedule optimisation.
5.	Group session	6	2	4	Lesson 5. Technology of maintenance and repair of artillery weapons. 1. The concept of organisation of maintenance of weapons. 2. Features of the organisation of weapons repair. Independent work 1. Organisation of maintenance of weapons in the repair unit.

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
1	2	3	4	5	6
					2. Organisation of weapons repair.
		51	24	27	Topic 2. Maintenance of different types of artillery weapons
6.	Group session	8	2	6	Lesson 2. Maintenance of rocket artillery combat vehicles, anti-tank and tactical (operational-tactical) missile systems. 1. Forces and means of maintenance. 2. Frequency and scope of maintenance work. Independent work 1. The procedure for calculating operations in maintenance planning. 2. Means of technical diagnostics of ATGM combat vehicles. 3. Means of technical diagnostics of tactical (operational-tactical) missile systems.
7.	Group session	5	2	3	Lesson 4. Maintenance of trailed artillery and mortars. 1. Main works during maintenance. 2. Operating materials and tools for maintenance. Independent work 1. Devices and solutions for cleaning barrel channels. 2. Basic work during maintenance.
8.	Practical session	6	6		Lesson 6 Procedure for maintenance of trailed artillery and mortars. 1. Maintenance work on trailed guns. 2. Maintenance work on mortars.
9.	Group session	6	2	4	Lesson 7. Maintenance of self-propelled guns. 1. Frequency of maintenance. 2. Organisation and methods of maintenance. Independent work 1. Organisation of control inspection of guns before the march. 2. Features of maintenance of self-propelled guns.
10.	Group session	12	4	8	Lesson 9. Maintenance of artillery equipment and small arms. 1. Maintenance of artillery instruments 2. Maintenance of small arms.

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
1	2	3	4	5	6
					Independent work 1. List of checks during maintenance. 2. The procedure for maintenance of artillery instruments. 3. Special means of determining the technical condition of small arms. 4. The procedure for maintenance of small arms.
11.	Practical session	6	6		Lesson 12. Maintenance of artillery devices and small arms. 1. Carrying out maintenance of small arms. 2. Maintenance of artillery instruments.
12.	Group session	8	2	6	Lesson 13. Organisation and methods of technical inspection of ammunition. 1. General requirements. 2. List of works during the technical inspection of ammunition. Independent work 1. Frequency of inspection of ammunition. 2. Routine work with anti-tank guided missiles. 3. Operational maintenance materials. 4. Conservation materials.
		75	38	37	Section 2. Organisation of operation of armoured weapons and equipment and motor vehicles
		30	16	14	Topic 3. Operation of armoured weapons and equipment (AWE).
13.	Lecture	5	2	3	Lesson 1. Basic provisions for the operation of armoured vehicles. 1. The concept of “Operation of machines”, stages and types of operation, life cycle of the machine. 2. The concept of the AWE operation system. 3. Distribution of armoured weapons and equipment by groups of operation and annual rates of consumption of motor resources. Independent work 1. Categorisation of armoured weapons and equipment. 2. Categorisation of technical property.
14.	Group session	5	2	3	Lesson 2. Procedure for organising the operation of armoured weapons and equipment. 1. Life cycle of a sample of weapons and technical documentation accompanying the stages of operation.

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
1	2	3	4	5	6
					<p>Guaranteed service life of machines and their overhaul resources.</p> <p>2. Methodology for checking and assessing the technical condition of a weapon sample. Frequency of checking the technical condition of machines by unit officials.</p> <p>Independent work</p> <p>1. Frequency of checking the technical condition of AWE by unit officials.</p> <p>2. Technical documentation for the machine.</p>
15.	Group session	7	4	3	<p>Lesson 3: Preparation of technical condition reports.</p> <p>1. Preparation of a technical condition certificate for a fuel assembly.</p> <p>2. Registration of the technical condition certificate for the engine.</p> <p>Independent work</p> <p>1. Documentation for the repair of the machine.</p> <p>2. The procedure for writing off and delivery of spare parts to the warehouse.</p>
16.	Group session	7	4	3	<p>Lesson 4. Basic provisions for receiving and transmitting AWE.</p> <p>1. Requirements for machines to be transferred.</p> <p>2. Procedure for acceptance and transfer of AWE.</p> <p>3. Peculiarities of acceptance of vehicles in storage (in the area of hostilities).</p> <p>Independent work</p> <p>1. Requirements for the preparation of technical documentation for the machine to be accepted and transferred.</p>
17.	Group session	6	4	2	<p>Lesson 5. Commander's work on technical support (armoured technical support).</p> <p>1. Commander's actions after receiving a combat mission on organising technical support (armoured technical support).</p> <p>2. Procedure for preparing proposals on technical support (armoured technical support).</p> <p>Independent work</p> <p>1. Capabilities of technical support sub-units in repairing AWE.</p>
		45	22	23	Topic 4. Fundamentals of automotive equipment operation.
18.	Lecture	5	2	3	<p>Lesson 1 . General provisions for the operation of automotive equipment .</p> <p>1. Life cycle of automotive products. Operation as a stage of the life cycle . Results of the operation of</p>

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
1	2	3	4	5	6
					<p>military vehicles in the course of training and during the use of troops in combat operations (JFO).</p> <p>2. Composition and classification of motor vehicles . Operational documentation for the vehicle. Vehicle passport .</p> <p>3. Groups of operation of motor vehicles.</p> <p>Independent work</p> <p>1. Operational documentation for the machine. Filling in the passport of the machine.</p> <p>2. Preparation of military vehicles for use Procedure for acceptance, commissioning and assignment of a vehicle to a driver .</p>
19.	Group session	5	2	3	<p>Lesson 2. Consumption of motor resource.</p> <p>1. Basic rates of consumption of motor resources per machine.</p> <p>2. Control over the consumption of motor resources.</p> <p>Independent work</p> <p>1. General provisions for the use of military vehicles for their intended purpose in peacetime and wartime .</p> <p>2. Features of the use of automotive equipment.</p> <p>3. Resource and coefficient of technical readiness of vehicles .</p>
20.	Group session	6	2	4	<p>Lesson 3. Documentation of the use of motor vehicles.</p> <p>1. Documents regulating the use of motor vehicles for their intended purpose in peacetime.</p> <p>2. Use of military vehicles in wartime.</p> <p>Independent work</p> <p>1. Preparation for the transport of motor vehicles by rail.</p> <p>2. Preparation for the transport of motor vehicles by water transport.</p> <p>3. Preparation for the transport of motor vehicles by air.</p> <p>4. Preparation for the transport of motor vehicles by road trains.</p>
21.	Group session	5	2	3	<p>Lesson 4. Types of maintenance of motor vehicles.</p> <p>1. Daily maintenance.</p> <p>2. Maintenance TM-1 and TM-2.</p> <p>3. Seasonal maintenance.</p> <p>4. Regulated maintenance.</p>

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
1	2	3	4	5	6
					5. Annual maintenance. Independent work 1. Algorithm of daily maintenance. 2. Algorithms for maintenance TM-1 and TM-2.
22.	Group session	2	2		Lesson 5. Technical diagnostics of automotive equipment. 1. General provisions for the diagnosis of military vehicles. 2. Methods and means of technical diagnostics of automotive vehicles. 3. Vehicle diagnostic post in a military unit and organisation of work on it.
23.	Group session	5	2	3	Lesson 6. Mobile maintenance equipment . 1. Classification and composition of mobile maintenance equipment. Use of mobile maintenance equipment in local conflicts (JFO). 2. Purpose, production capabilities of the maintenance workshop of MTO - AT. Independent work 1. Preparation of maintenance vehicles. 2. Preparation of mobile maintenance vehicles.
24.	Group session	2	2		Lesson 7. Conditions of storage of automotive equipment. 1. Factors affecting the change in the reliability of machines. 2. Corrosion of metals during storage. 3. Changes in rubber properties during storage.
25.	Group session	9	2	7	Lesson 8. Methods of protecting motor vehicles during storage. 1. Methods of applying a permanent protective coating. 2. Methods of applying a protective coating of temporary action. 3. Method of electrochemical protection. Independent work 1. Technology of applying a permanent protective coating. 2. Technology of applying a protective coating of temporary action. 3. Technology of electrochemical protection. 4. Preparation for the exam.

№ s/n	Types of training sessions, control measures	Total hours	Of which		Topic, purpose and objectives of the training session, study questions
			Initial classes	Independent work	
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
	Control measures	6	6		Examination
	Total for discipline	150	76	74	