

MINISTRY OF DEFENCE OF UKRAINE

MILITARY ACADEMY (ODESA)

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

***PROFESSIONAL COURSE OF TACTICAL LEVEL FOR LOGISTICS FORCES
(FUEL AND LUBRICANTS), L-1B (FL)***

**Military Accounting
Specialty**

*701000 " Organisation of Fuel and Lubricants
Supply for Troops (Forces)"*

APPROVED

by the Academic Council of the
Military Academy (Odesa) (protocol
dated "____" ____ 20_ No._)

Head of the Academic Council

Military Academy (Odesa)

Major General

Andrii KOVALCHUK

Put into effect by Order of the
Commandant of the Military Academy
(Odesa) dated " __ " ____ 20_ No.

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

**PROFESSIONAL COURSE OF TACTICAL LEVEL FOR LOGISTICS
FORCES (FUEL AND LUBRICANTS), L-1B (FL)**

**by military accounting
specialty**

*701000 " Organisation of Fuel and Lubricants
Supply for Troops (Forces)"*

APPROVED

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

Volodymyr MIRNENKO
" ____ " _____ 20

APPROVED

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

Oleh PAVLOVSKYI
" ____ " _____ 20

APPROVED BY

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

Volodymyr KARPENKO
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Developed and submitted by

Head of the working group
Head of the Department of Fuel and
Lubricants Supply
Faculty of Logistics Support Training
Military Academy (Odesa)
Colonel

Serhii IANIUK
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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:

Serhii IANIUK – Candidate of Sciences in Public Administration, Associate Professor, Head of the Department of Fuel and Lubricants Supply of the Faculty of Training of Logistics Specialists of the Military Academy (Odesa).

Members of the working group:

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Denys LISOVENKO – Candidate of Technical Sciences, Associate Professor, Deputy Head of the Military Academy (Odesa) for Scientific Work.

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CONSIDERED:

- 1. Professional Standard of a Tactical-Level Officer of the Armed Forces of Ukraine.*
- 2. Comments from Internal and External Stakeholders.*
- 3. Suggestions from Learners (Cadets/Students).*
- 4. Combat Experience.*

1. PROFILE OF THE EDUCATIONAL PROGRAM PROFESSIONAL MILITARY EDUCATION COURSE

1 – General information	
Full name of the higher education institution	Military Academy (Odesa)
Title of the document on completion and scope of the educational programme of the professional military education course	Certificate of Completion of the Educational Programme “Professional Tactical-Level Course of the Logistics Forces (Fuel and Lubricants), L-1B (FL), under Military Occupational Specialty 701000”. Total academic workload: 30 ECTS credits.
Prerequisites	Possession or pursuit (for cadets) of a higher education degree not lower than a bachelor’s; completion of the Basic Tactical Level Course L-1A; for military personnel: service as enlisted, non-commissioned, or warrant officers; for civilians: fitness for military service in the Armed Forces of Ukraine based on health status.
Language(s) of instruction	Ukrainian
Duration of the educational programme for the professional education course	Until the update or introduction of a new educational programme.
2 – Objectives of the educational programme	
Training at the tactical level of qualified officers who are competent in matters of organizing fuel and lubricants supply for troops (forces), operating technical equipment of the fuel service, and capable of performing assigned tasks.	
3 – Characteristics of the educational programme	
Subject area	Field of Knowledge: "25 – Military Sciences, National Security, State Border Security"; Specialty: "254 – Troop (Force) Support"; Specialization: "Support of units (subunits, formations) with rocket fuel, fuel, and lubricants".
Main focus of the professional military education course programme	Professional military education for service in standard positions defined by the professional standard of a tactical-level officer under MOS (Military Occupational Specialty) 701000.
Features of the programme	The educational program is developed based on the educational program of the Basic Tactical Level Course L-1A, approved by the Chief of the General Staff of the Armed Forces of Ukraine on 29.06.2024, No. 97672/S, and incorporates current combat experience gained during the Anti-Terrorist Operation, the Joint Forces Operation, and the defence against the full-scale invasion of the Russian Federation into Ukraine.
4 – The employability and further education prospects of graduates	
Employability	Initial positions for junior officers as defined in the professional standard of a tactical-level officer.
Further education	Training under the educational programme of the professional military education course “Tactical-Level Command Course of the Logistics Forces L-1C”.

5 – Teaching and Assessment	
Teaching and learning	The main types of instructional activities used for delivering the components of the educational program include: Lectures; Seminars, Group Sessions, Practical Sessions, Group Exercises; Tactical Exercises (including Tactical-Formation Exercises and Tactical-Special Exercises), and Independent Work, including at the field training base.
Assessment	The assessment of learners’ outcomes includes the full range of evaluation measures outlined in the curricula of academic disciplines and is conducted using a 100-point scale, the ECTS scale, and the national scale.
6 – Programme competencies	
Military-Specialized Competencies (MSC)	<p>MSC 1 – Ability to organize logistics support of units (subunits), including the provision of weapons, military and special equipment, materiel, transport and engineering infrastructure works and services.</p> <p>MSC 2 – Ability to apply knowledge of military art and the organization of support in modern combined-arms combat (operations) under various professional conditions.</p> <p>MSC 3 – Ability to plan, organize and conduct basic types of combat (combat operations), clearly assign combat tasks to subordinate and attached units (fire means), and maintain situational awareness under complex combat conditions.</p> <p>MSC 4 – Ability to maintain accounting, write-off, and reporting of materiel for fuel and lubricants services.</p> <p>MSC 5 – Ability to conduct procedural analyses to determine the composition and classification of crude oil and petroleum products.</p> <p>MSC 6 – Ability to perform the duties of a fuel and lubricants service chief in a military unit.</p> <p>MSC 7 – Ability to carry out control functions to prevent breakdowns, accidents, losses, and shortages of materiel in the fuel and lubricants service, and personally conduct minor repair work to return faulty equipment to service.</p> <p>MSC 8 – Ability to provide fuel, lubricants, and technical means of the fuel service in peacetime and wartime to ensure their maintenance and replenishment of losses.</p> <p>MSC 9 – Ability to organize quality control of fuel and personally conduct laboratory testing of fuels, lubricants, and special fluids.</p> <p>MSC 10 – Ability to organize and carry out the installation, operation, repair, and dismantling of field main pipelines.</p> <p>MSC 11 – Ability to organize the operation and maintenance of technical equipment of the fuel service.</p> <p>MSC 12 – Ability to perform the duties of a logistics officer (rear services).</p>
7 – Programme learning outcomes	
Professional training (LOmpt)	<p>LOmpt 1 - To determine technical characteristics and procedures for operating standard weapons and military equipment (WME), the requirements of regulatory documents regarding the storage and use of WME, the rules for maintaining technical documentation of the unit; to be capable of organizing logistical support for the unit.</p> <p>LOmpt 2 - To know and understand the general principles of the art of war, modern armed combat, and general military battle; to be capable of effective unit command in major types of combat at the battalion level.</p> <p>LOmpt 3 - To effectively apply combat capabilities, various forms and methods of tactics of unit actions in the main types of combat (tactical actions).</p> <p>LOmpt 4 - To know and understand the procedures for organizing accounting, write-off, and reporting of materiel assets within the fuel and lubricants service.</p>

	<p>LOmpt 5 - To know and understand the origin, extraction methods, classification of oil and petroleum products, their composition and physicochemical properties, methods and technologies for producing fuels, lubricants and special technical fluids; to apply fuels and lubricants and special fluids according to their intended use.</p> <p>LOmpt 6 - To know and understand the organization of the fuel and lubricants service in military units (subunits), interaction between services within a unit, organization of rocket fuel and fuel supply in peacetime and combat conditions; fundamentals and regulations of provisioning, equipment and property management, procedures and rules for accounting of fuel service materiel. To apply quality control instruments in service duties; to identify petroleum products by basic physicochemical indicators; to conduct systematic control of the economic activity of the fuel service and perform full duties of a chief of the fuel and lubricants service in a military unit.</p> <p>LOmpt 7 - To know and understand the fundamentals of operation of fuel service technical equipment and property; to perform planning and control functions to prevent malfunctions, breakdowns, losses, and shortages of fuel service materiel; to organize work for operation and servicing of technical equipment for short-term and long-term storage. To be able to use guiding documents related to technical condition control; to navigate the nomenclature of fuel service equipment; to develop planning documents for operation and servicing; to conduct tactical and tactical-drill exercises with fuel service subunits.</p> <p>LOmpt 8 - To ensure provision of fuels, lubricants and fuel service equipment to maintain the unit's permanent combat and mobilization readiness; to organize reception, storage, issuance, and accounting of materiel; to organize fueling of weapons systems in stationary and field conditions; to manage subordinate units during peacetime, wartime, and in special periods; to develop planning, directive, reporting and other fuel service documents.</p> <p>LOmpt 9 - To know the physicochemical properties of petroleum products, reproduce quality control methods, identify products according to national standards; to determine quantity and quality of light and dark petroleum products in storage tanks of military units and supply centers; to correctly store fuels and lubricants.</p> <p>LOmpt 10 - To know and understand the procedures for organizing actions of pipeline subunits during the employment of field main pipelines. To be familiar with the tactical and technical characteristics of field main pipelines.</p> <p>LOmpt 11 - To know the basic principles of organization and planning of operation and repair of fuel service technical equipment.</p> <p>LOmpt 12 - To know and understand the procedures for organizing the work of logistics officers (rear services); to apply acquired knowledge in duty performance.</p>
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8 – Resource support for programme implementation

<p>Staffing support</p>	<p>Academic staffs involved in the educational programme are full-time employees of the Military Academy; some of them have academic degrees, academic titles and a proven level of scientific and professional activity. Professional competences are developed by professionals with professional experience.</p> <p>The practice-oriented nature of the educational programme involves the wide participation of practitioners who are relevant to the programme, which enhances the synergy between theoretical and practical training.</p> <p>The head and members of the working group on the development of the programme, as well as the teaching staff that ensures the implementation of the educational programme meet the requirements set by the Ministry of Defence of Ukraine.</p>
<p>Material and</p>	<p>To achieve the competencies and learning outcomes specified in</p>

technical support	the educational program, the material and technical facilities of the Military Academy (Odesa) and the Centre for Supporting the Educational Process of the Military Academy are utilized. The material and technical support meets the requirements for providing educational services and is sufficient to ensure the quality of the educational process, including: classrooms; computer labs; specialized laboratories; sports halls and grounds; library and reading room; multimedia equipment; facilities for academic and teaching staff; barracks; dining facilities, and more.
Information and educational-methodological support	<p>The educational and methodological support is developed in accordance with current regulatory and legislative documents of the Ministry of Education and Science of Ukraine and orders of the Ministry of Defence of Ukraine, and includes the following materials:</p> <ul style="list-style-type: none"> Instructional and methodological materials for Practical Sessions; Educational and methodological materials for all types of instructional activities; Methodological guidelines for completing assignments (projects); Methodological guidelines for organizing Independent Work; Programs for all types of practical training; Diagnostic tools. <p>The educational process utilizes the library resources, including educational materials and methodological developments by teaching staff.</p> <p>The program is supported by the virtual learning environment of the Military Academy (Odesa), proprietary developments, textbooks, manuals, and other educational and methodological materials.</p> <p>The official website of the Academy (http://vaodesa.mil.gov.ua/) provides information on educational, scientific, and moral training activities, structural units, admission rules, and contacts. Users have access to all available library resources. The technological and material-technical support for the educational process is available.</p>

2. THE LIST OF COMPONENTS OF THE EDUCATIONAL PROGRAMME OF THE PROFESSIONAL MILITARY EDUCATION COURSE AND THE ALIGNMENT OF PROGRAMME COMPETENCIES AND LEARNING OUTCOMES WITH THE COMPONENTS OF THE EDUCATIONAL PROGRAMME

2.1. The list of components of the educational programme (EP).

Code n/a.	Components of the educational programme (academic disciplines/modules).	Number of credits	Form of final control
MP 01	Combat employment of mechanized units	1,3	Credit
MP 02	Logistical support of combat operations	6,7	Exam
MS 01	Application and quality control of fuel and lubricants	5,0	Exam
MS 02	Organization of rocket fuel and fuel and lubricants supply	9,0	Exam
MS 03	Employment of technical means of POL service	5,0	Exam
MS 04	Supply of fuel and lubricants to Air Force and Navy units	3,0	Exam
Total under the credit program		30,0	

2.2 Alignment of programme competencies with components of the educational programme.

	MP 01	MP 02	MS 01	MS 02	MS 03	MS 04
MSC 1	+	+		+		
MSC 2	+	+				
MSC 3	+	+				
MSC 4				+		
MSC 5			+	+		
MSC 6				+	+	+
MSC 7				+	+	+
MSC 8				+		+
MSC 9			+	+		+
MSC 10				+		
MSC 11				+		
MSC 12		+		+		

2.3 Alignment of learning outcomes with components of the educational programme.

	MP 01	MP 02	MS 01	MS 02	MS 03	MS 04
LOmpt 1	+	+		+		
LOmpt 2	+	+				
LOmpt 3	+	+				
LOmpt 4				+		
LOmpt 5			+	+		
LOmpt 6				+	+	+
LOmpt 7				+	+	+
LOmpt 8				+		+
LOmpt 9			+	+		+
LOmpt 10				+		
LOmpt 11				+		
LOmpt 12		+		+		

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

No.	Code of academic discipline	NAME OF THE ACADEMIC DISCIPLINE (MODULE)	Semester Distribution		Number of ECTS credits	Number of hours							Distribution of Classroom Hours by Years of Study and Semesters							
			Exams	Credits		Total Workload	Contact hours				Assessment Activities	Independent Work	1st Year		2nd Year		3rd Year		4th Year	
							Total	Lectures	Group Session Seminars	Practical Session, Laboratory Session			1	2	3	4	5	6	7	8
			Semesters																	
			Number of Weeks per Semester																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
1	MP 01	Combat employment of mechanized units	-	5	1,3	40	36	2	8	26	4	-					40			
																	C			
2	MP 02	Logistical support of combat operations	7	-	6,7	200	190	20	70	100	4	6					60	114	20	
																		2	4	
																			Ex	
3	MS 01	Application and quality control of fuel and lubricants	8	6	5,0	150	96	24	26	46	4	50					20	30	20	30
																	10	15	10	15
																		C		Ex
4	MS 02	Organization of rocket fuel and fuel and lubricants supply	8	4,6	9,0	270	172	46	52	74	8	90			24	22	30	48		56
															21	8	15	13		33
																	C			Ex
5	MS 03	Employment of technical means of POL service	8	6	5,0	150	100	22	30	40	8	50					16	30	30	24
																	4	15	15	16
																		C		Ex
6	MS 04	Supply of fuel and lubricants to Air Force and Navy units	8	-	3,0	90	60	8	10	42		30								60
																				30
																				Ex
Total			-	-	30,0	900	786	122	206	346		226	-	-	-	-	-	-	-	-
Total number			-	-	30,0	900	786	122	206	346		226	-	-	-	-	-	-	-	-
Number of hours per week			-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-
Number of exams			5	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	1
Number of differentiated credits (credits)			-	5	-	-	-	-	-	-		-	-	-	-	-	1	1	4	-

4. PROGRAMMES OF THE COMPONENTS OF THE EDUCATIONAL PROGRAMME

Programme of the discipline

MP 01 " COMBAT EMPLOYMENT OF MECHANIZED UNITS"

General objective of the educational programme component:

To provide the participant with an understanding of the structure and processes occurring in the combat support system of a typical battalion-level unit; the procedure for organising interaction by types of support and management at the level of battalion headquarters and battalion support units; and to lay the foundation for mastering standard operating procedures and the basic apparatus for planning and management.

Upon completion of the educational programme component, the participant should:

Know:

The processes of managing a unit (by types and branches of the Armed Forces of Ukraine and other military formations established in accordance with Ukrainian laws) during preparation and conduct of combat and in routine activities.

The processes of comprehensive support of a unit (by types and branches of the Armed Forces of Ukraine and other military formations established in accordance with Ukrainian laws) during combat employment and routine activities.

The organisation of combat planning in accordance with NATO standard operating procedures (MDMP).

Be able to:

Plan, organise, and apply skills in conducting combat with a unit (by types and branches of the Armed Forces of Ukraine and other military formations established in accordance with Ukrainian laws).

Manage a support unit during preparation and conduct of combat, as well as during routine activities in a support unit (by types and branches of the Armed Forces of Ukraine and other military formations established in accordance with Ukrainian laws).

Apply knowledge of modern armed conflict and combined arms combat, military art, and the fundamentals of a soldier's combat survival system in various conditions of professional activity.

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

Organisational and methodological guidelines:

The teaching methodology of the academic discipline is based on the fundamental principles of didactics (the theory of justification and learning). It provides a scientific-pedagogical description of the forms and methods of teaching, identifies the most appropriate combinations to achieve the desired 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 instruction:

Frontal form of instruction, where all participants, under the supervision of the instructor, perform the same task simultaneously.

Group form of instruction, where participants are organised into groups (units) based on the standard structure of the unit, working in parallel.

Individual form of instruction, where participants perform tasks sequentially, one after another.

Depending on the need to achieve specific levels of knowledge or skills, the instructor should use the following methods:

Verbal-visual method;

Training method;

Situational-cognitive method.

The **verbal-visual method** involves the instructor systematically and sequentially presenting the instructional material, demonstrating the objects being studied to provide learners with new knowledge and form appropriate understanding.

The **training (reproductive) method** involves performing complex actions according to a pre-established algorithm set by the lesson leader to develop necessary skills and ensure the coherence of military-organisational structures.

The **situational-cognitive method** involves reviewing and discussing real (or likely) actions, familiarising learners with the experience of managing forces in military conflicts, and developing skills in information-analytical activities.

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

Problem-based teaching involves the lesson leader presenting a problem to the learners, solving it themselves while demonstrating the solution process and revealing their thought process. The direct result of problem-based teaching should be the learner's assimilation of the method and logic of solving a specific problem, though not yet with the ability to apply it independently. This method teaches learners how to seek knowledge, helping them acquire skills in creative thinking.

The **search (heuristic) method** aims to gradually guide learners toward independently solving problems by first teaching them to perform individual elements of the solution. It is used during group exercises, where the lesson leader determines the approach to finding the optimal solution, but the learner finds the solution themselves.

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

Material and technical support:

Sessions should be conducted in specialised classrooms, which, depending on the topic of the sessions, must be equipped with information display tools, maps, diagrams, and personal computing equipment at a ratio of no more than one workstation per two participants. The use of technical teaching aids is mandatory during instructional sessions.

Information and methodological support:

1. Combat Regulations of the Mechanised and Tank Forces of the Land Forces of the Armed Forces of Ukraine, Part II (Battalion, Company), approved by Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 564 dated 30.12.2016, with amendments.
2. VCP 3-102(03).01 Doctrine on the Structure of Command Posts (Control Points) in Joint Operations. Kyiv, 2021.
3. Combat Regulations of the Land Forces "Structure and Functioning of Command Posts (Control Points) in Operations". Kyiv, 2023.
4. Combined Arms Formations in Combat (NATO Standards): Study Guide. Kyiv: National Defence University of Ukraine named after Ivan Cherniakhovsky.
5. Training Package for Military Units (Subunits) (NDU), 2018.

6. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 140 dated 11.09.2020 “On Approval of the Temporary Procedure for Preparing Operational (Combat) Documents”.
7. NATO Standard “APP-6”, “NATO Joint Military Symbolology”.
8. Collection of Tactical Calculations with Examples: Study Guide / Collective Authors. Kyiv: National Defence University of Ukraine named after Ivan Cherniakhovsky, 2018, 96 p.
9. TCP 3-(00)152(03).01 Procedure “Work of the Commander and Staff of the Tactical Command Level in Planning Combat (Operations) According to NATO Standard Operating Procedures”, 2021.
10. VP 7(5)-00(11)03.01 Methodological Recommendations for Planning and Organising Combat According to NATO Standards, 2020.
11. Guide of the Training Centre for Planning and Organising Combat According to NATO Standards. Kyiv, 2019.
12. Military Guide VP 1.0 “Military Leadership”. Kyiv: General Staff of the Armed Forces of Ukraine, 2016, 29 p.
13. US Army Field Manual. Conduct of Combat Operations. FM 3-07, 2008.
14. Album of Schemes of Actions of Subunits (Squad, Platoon, Company, Battalion). Lviv: National Academy of Land Forces named after Hetman Petro Sahaidachny, 2018.
15. BP 3(7)-08(11).01 Combat Regulations of the Land Forces “Air Defence Forces of the Land Forces of the Armed Forces of Ukraine”, Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 215 dated 30 March 2021. Land Forces Command of the Armed Forces of Ukraine, March 2021, 136 p., unclassified.
16. SBP 3-00(08).56(57) Combat Regulations of the Land Forces “Air Defence Forces of the Land Forces of the Armed Forces of Ukraine”, Part II (Division, Battery (Group)), Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 596 dated 27 December 2016. Land Forces Command of the Armed Forces of Ukraine, December 2016, 227 p., unclassified.
17. SBP 3-00(08).58(59) Combat Regulations of the Land Forces “Air Defence Forces of the Land Forces of the Armed Forces of Ukraine”, Part III (Platoon, Squad, Crew), Order of the Commander of the Land Forces of the Armed Forces of Ukraine No. 248 dated 26 May 2016. Land Forces Command of the Armed Forces of Ukraine, May 2016, 194 p., unclassified.
18. Handbook on Foreign Armies (Training and Combat Composition “Yellow”), Study Guide, Kyiv: NDU, 2020.
19. Album of Schemes: Employment of Russian Federation Armed Forces Units in Main Types of Combat, Kyiv: NDU, 2018.

Supplementary:

1. Current Issues in the Training and Employment of the Armed Forces of Ukraine During the Anti-Terrorist Operation in Eastern Ukraine. Kyiv, 2016, inv. 2537, 136 p.
2. TCP 7-000 (162)01.01 “Collection No. 1 of Materials on Studying the Combat Experience of the Russian-Ukrainian War of 2022”. Kyiv: Main Directorate of Training and Advocacy of the General Staff of the Armed Forces of Ukraine, 2022.
3. TCP 7-000 (162)01.02 “Collection No. 2 of Materials on Studying the Combat Experience of the Russian-Ukrainian War of 2022”. Kyiv: Main Directorate of Training and Advocacy of the General Staff of the Armed Forces of Ukraine, 2022.

4. TCP 7-000 (162)01.03 “Collection No. 3 of Materials on Studying the Combat Experience of the Russian-Ukrainian War of 2022”. Kyiv: Main Directorate of Training and Advocacy of the General Staff of the Armed Forces of Ukraine, 2022.
5. TCP 7-000 (162)01.04 “Collection No. 4 of Materials on Studying the Combat Experience of the Russian-Ukrainian War of 2022”. Kyiv: Main Directorate of Training and Advocacy of the General Staff of the Armed Forces of Ukraine, 2022.
6. Collection of Tactical Calculations with Examples: Study Guide / Collective Authors. Kyiv: National Defence University of Ukraine named after Ivan Cherniakhovsky, 2018, 96 p.
7. Order of the Ministry of Defence of Ukraine No. 595 dated 05.09.2013 “On Approval of the Regulation on Military Transport by Rail, Sea, River, and Air Transport”.
8. Generalised Materials on the Analysis of Task Execution by Military Units (Subunits) of the Land Forces During the ATO. Centre for Operational Standards and Training Methodology of the Armed Forces of Ukraine, 2016, 156 p.
9. Generalised Materials on the Analysis of Training and Conduct of Operations (Combat Actions) by the Armed Forces of Ukraine During the ATO. Zhytomyr, 2015, 111 p.
10. Employment of Mechanised Units in Performing Special Tasks in Modern Armed Conflicts. Odesa: Science and Technology, 2008, 98 p.
11. VP 7(3)-00(01).01 Temporary Instruction on the Process of Analysing Conducted Actions and Training Measures. Centre for Operational Standards and Training Methodology of the Armed Forces of Ukraine, Main Directorate of Training of the Armed Forces of Ukraine, 2019, 40 p.
12. VP 7(3)-(01-05)03.01 Methodological Recommendations “Organisation, Management, and Improvement of the Fire System in Modern Conditions”. Centre for Operational Standards and Training Methodology of the Armed Forces of Ukraine, Main Directorate of Training of the Armed Forces of Ukraine, 2019, 120 p.

Information sources:

1. Official website of the Ministry of Defence of Ukraine: <http://www.mil.gov.ua/>
2. Scientific-theoretical and scientific-practical journal “Science and Defence”: <http://www.nio.mil.gov.ua/>
3. Official website of the Verkhovna Rada of Ukraine: <http://zakon2.rada.gov.ua/laws/a#Find>

Titles of Topics and Distribution of Study Time by Types of Academic Activities

№	Types of Academic Activities, Assessment Methods	Total hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
		6	6		Topic 1. Fundamentals of combat employment of a mechanised battalion (company) in main types of combat (tactical actions).
1.	Lecture	2	2		Lesson 1. Organisation, armament, combat equipment, and combat capabilities of a mechanised (motorised infantry, tank) battalion (company) 1. The role and significance of the discipline in the educational process. 2. Organisation, armament, and combat equipment of a mechanised (motorised infantry, tank) battalion (company) equipped with BMP (APC). Technical specifications of armament and combat equipment. 3. Combat capabilities of a mechanised battalion (company).
2.	Group session	2	2		Lesson 2. Organisation, armament, combat capabilities, and fundamentals of combat employment of artillery, anti-tank, grenade launcher, and air defence units of a mechanised battalion 1. Tasks performed by artillery in various types of combat. Purpose, composition, combat formation, and combat capabilities of organic and attached artillery units of the battalion. 2. Organisational structure, armament, and combat capabilities of machine gun, anti-tank, grenade launcher, and air defence missile platoons of the battalion. 3. Employment of artillery, machine gun, anti-tank, grenade launcher, and air defence missile units of the battalion in main types of combat.
3.	Seminar	2	2		Lesson 4. Organisation, armament, combat equipment, and combat capabilities of a mechanised (motorised infantry, tank) battalion (company) and its combat units 1. Organisation, armament, and combat equipment of a mechanised (motorised infantry, tank) battalion (company) equipped with BMP (APC). Technical specifications of armament and combat equipment. 2. Combat capabilities of a mechanised battalion (company). 3. Tasks performed by artillery in various types of combat. Purpose, composition, combat formation, and combat capabilities of organic and attached artillery units of the battalion. 4. Organisational structure, armament, and combat capabilities of machine gun, anti-tank, grenade launcher, and air defence missile platoons of the battalion. 5. Employment of artillery, machine gun, anti-tank, grenade launcher, and air defence missile units of the battalion in main types of combat.
		2	2		Topic 2. Fundamentals of employment of motorised rifle (tank) brigades (regiments) of neighbouring countries' armies
4.	Lecture	2	2		Lesson 1. Fundamentals of combat employment of motorised rifle (tank) brigades (regiments) of neighbouring countries' armies 1. Organisational structure, tactical-technical specifications of armament, and military equipment of motorised rifle (tank) brigades

№	Types of Academic Activities, Assessment Methods	Total hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
					(regiments). 2. Fundamentals of combat employment of motorised rifle (tank) brigades (regiments) in offensive combat (purpose, tasks, combat formation, tactical standards). 3. Fundamentals of combat employment of motorised rifle (tank) brigades (regiments) in defensive combat (purpose, tasks, combat formation, tactical standards).
		12	12		Topic 3. Defensive combat of a mechanised battalion (company)
5.	Lecture	2	2		Lesson 1. Preparation and conduct of defensive combat by a mechanised battalion (company) 1. Mechanised battalion (company) in defensive combat. 2. Conduct of defensive combat. Features of conducting mobile defence.
6.	Group session	2	2		Lesson 3. Preparation of defensive combat (Military Decision-Making Process (MDMP)) 1. Work of the commander and battalion staff in organising defensive combat. Military Decision-Making Process (MDMP). Stages of planning and their content. 2. Responsibilities of officials at the stages of the Military Decision-Making Process (MDMP).
7.	Group session	2	2		Lesson 5. Military Decision-Making Process (MDMP) 1. Analysis of the received task. 2. Development of courses of action (COAs). 3. Analysis of courses of action (COAs).
					Tactical task No. 1. Transition of a Battalion Tactical Group (BTG) to defence in conditions of no contact with the enemy.
8.	Group session	6	6		Lesson 7. Transition of a Battalion Tactical Group (BTG) to defence in conditions of no contact with the enemy 1. Task comprehension and situation assessment (following the Military Decision-Making Process (MDMP) algorithm). 2. Development of courses of action (COAs). Analysis and justification of COAs. 3. Development of the concept and its depiction on the operational map. 4. Modular assessment.
		10	10		Topic 4. Movement of a mechanised battalion (company)
9.	Lecture	2	2		Lesson 1. March of a mechanised battalion (company) 1. Mechanised battalion (company) on the march. 2. Methodology for calculating the march of a mechanised battalion.
10.	Practical session	6	6		Lesson 3. March of a mechanised battalion 1. Analysis of the received task.

№	Types of Academic Activities, Assessment Methods	Total hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. Establishment of the march order, distribution of forces and means within the column. 3. Calculation of the march of a mechanised battalion.
11.	Group session	2	2		Lesson 4. Transportation of a mechanised battalion by various types of transport 1. Organisation and execution of the transportation of a mechanised battalion. 2. Methodology for calculating the transportation of a battalion by rail.
		10	10		Topic 5. Offensive combat of a mechanised battalion (company)
12.	Lecture	2	2		Lesson 1. Preparation and conduct of offensive combat by a mechanised battalion (company) 1. Mechanised battalion (company) in offensive combat. Purpose, types, and conditions for transitioning to the offensive. 2. Conduct of offensive combat.
					Tactical task No. 2. The transition of the BTGr to the offensive from a position of direct contact with the enemy with the regrouping of units
13.	Group session	8	8		Lesson 3. Deciding on an offensive battle. 1. Awareness of the task, assessment of the situation (according to the algorithm of military decision-making (MDMP)). 2. Development of Action Options (SOAs). Analysis and justification (SOAs). 3. Development of the idea and its application on the working map.
Total for Discipline		40	40		

Programme of the discipline
MP 02 "Logistical Support of Combat Operations"

General Objective of the Educational Programme Component:

To provide knowledge of the processes of managing logistics services and subordinate logistics support units; understanding of the processes of comprehensive support for units; developing skills in planning logistical support for various types of combat (march) using standard operating procedures; mastering rational methods of work for a logistics officer, fostering creative thinking to solve complex professional tasks; and consolidating diverse knowledge into a unified toolkit for successfully performing the duties of a tactical-level logistics officer.

Upon completion of the educational programme component, the participant should:

Know:

The organisational structure and tasks of logistics.

The organisation and management of the military economy of a military unit.

The organisational structure, tasks, and capabilities of logistics support bodies, and the fundamentals of their employment in various types of tactical actions.

The organisation of the delivery of logistical material resources.

The fundamentals of logistical planning and record-keeping using the LOGFAS software.

The organisation of logistical support for mobilisation measures and bringing military units to combat readiness.

The organisation of logistical support planning in accordance with NATO standard operating procedures (MDMP).

The fundamentals and rules for providing logistical material resources during preparation and conduct of combat (march).

Be able to:

Manage the logistics support service (by specialisation) of a military unit and organise its work during preparation and conduct of combat (march).

Make decisions and manage units during the execution of combat tasks related to logistical support.

Organise the protection, security, and defence of logistical material-technical resources and forces.

Read tactical symbols used to depict the logistical situation.

Read and maintain operational maps (diagrams), understand tasks, assess the situation, and make decisions as a logistics service officer in various types of tactical actions.

Use the LOGFAS software suite to address logistical reporting tasks.

Organisational and Methodological Guidelines:

The teaching methodology of the educational component is based on the fundamental principles of didactics (the theory of justification and learning). It provides a scientific-pedagogical description of the forms and methods of teaching, identifies the most appropriate combinations to achieve the desired 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 instruction:

Frontal form of instruction, where all participants, under the supervision of the instructor, perform the same task simultaneously.

Group form of instruction, where participants are organised into groups (units) based on the standard structure of the unit, working in parallel.

Individual form of instruction, where participants perform tasks sequentially, one after another.

Depending on the need to achieve specific levels of knowledge or skills, the instructor should use the following methods:

Verbal-visual method;

Training method;

Situational-cognitive method.

The **verbal-visual method** involves the instructor systematically and sequentially presenting the instructional material, demonstrating the objects being studied to provide learners with new knowledge and form appropriate understanding.

The **training (reproductive) method** involves performing complex actions according to a pre-established algorithm set by the lesson leader to develop necessary skills and ensure the coherence of military-organisational structures.

The **situational-cognitive method** involves reviewing and discussing real (or likely) actions, familiarising learners with the experience of managing forces in military conflicts, and developing skills in information-analytical activities.

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

Problem-based teaching involves the lesson leader presenting a problem to the learners, solving it themselves while demonstrating the solution process and revealing their thought process. The direct result of problem-based teaching should be the learner's assimilation of the method and logic of solving a specific problem, though not yet with the ability to apply it independently. This method teaches learners how to seek knowledge, helping them acquire skills in creative thinking.

The **search (heuristic) method** aims to gradually guide learners toward independently solving problems by first teaching them to perform individual elements of the solution. It is used during group exercises, where the lesson leader determines the approach to finding the optimal solution, but the learner finds the solution themselves.

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

Material and Technical Support:

Sessions should be conducted in specialised classrooms, which, depending on the topic of the sessions, must be equipped with information display tools, maps, diagrams, and personal computing equipment at a ratio of no more than one workstation per two participants. The use of technical teaching aids is mandatory during instructional sessions.

Information and Methodological Support:

1. Instruction on the Organisation of Material Support for Servicemen of the Armed Forces of Ukraine in Peacetime and Special Periods: Order of the Ministry of Defence of Ukraine No. 232 dated 29.04.2016.
2. Norms for the Consumption of Fuel, Oils, Lubricants, and Special Fluids during the Operation, Repair, and Preservation of Military Equipment and Armament of the Armed Forces of Ukraine, approved by Order of the Minister of Defence of Ukraine No. 01 dated 06.01.1999.
3. Temporary Instruction on Laundry and Bath Services for Personnel of the Armed Forces of Ukraine in Peacetime and Special Periods, approved by the Commander of Military Unit A2516 No. 312 dated 28.12.2017.

4. Norms for Accumulation, Maintenance, and Echeloning of Permanent Reserves 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 No. 4 dated 15.07.2008 (with amendments introduced by Order of the General Staff of the Armed Forces of Ukraine dated 20.07.2016).
5. Norms for Irrecoverable Losses, Repair Requirements for Armament and Military Equipment, and Consumption of Other Material Resources in Operations of the Armed Forces of Ukraine, enacted by Order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine No. 2 dated 26.01.2016.
6. Collection of Combat Kits and Norms for Military Reserves of Missiles and Ammunition in the Armed Forces of Ukraine, approved by Order of the Land Forces Command of the Armed Forces of Ukraine No. 3 dated 27.05.2003.
7. Instruction on the Preparation and Conduct of Mobilisation Deployment of the Armed Forces of Ukraine, approved by Order of the Ministry of Defence of Ukraine and the General Staff of the Armed Forces of Ukraine No. 19 dated 15.12.2017.
8. On the Implementation of Document Samples and Forms for the Preparation and Conduct of Mobilisation Deployment of the Armed Forces of Ukraine, approved by the Mobilisation Directive of the General Staff of the Armed Forces of Ukraine No. 321/1260 DSK dated 03.07.2018.
9. Regulation on the Procedure for Creation, Storage, Renewal (Replacement), and Use of Permanent Reserves of Logistical Equipment and Other Logistical Material Resources in the Armed Forces of Ukraine, approved by Order of the Ministry of Defence of Ukraine No. 6t dated 13.05.2016.
10. On Approval of the Procedure for Determining the Objectively Necessary Amount of Fuel for Household Needs in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine No. 524 dated 19.10.2018.
11. On Approval of the Procedure for the Use of Housing Property in the Ministry of Defence of Ukraine and the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine No. 34 dated 30.01.2019.
12. Methodological Recommendations on the Organisation of Logistical Support in Base Camps of Brigades (Battalions), Company (Platoon) Strongpoints, and Combat Positions. Kyiv: Logistics of the Armed Forces of Ukraine, 2016, 19 p.
13. Methodological Recommendations on the Organisation and Escort of Columns. Kyiv: Logistics of the Armed Forces of Ukraine, 2016, 9 p.
14. Combat Regulations of the Mechanised and Tank Forces of the Land Forces of the Armed Forces of Ukraine. Part I. Brigade. Kyiv: Land Forces Command of the Armed Forces of Ukraine, 2016.
15. Combat Regulations of the Mechanised and Tank Forces of the Land Forces of the Armed Forces of Ukraine. Part II. Battalion, Company. Kyiv: Land Forces Command of the Armed Forces of Ukraine, 2016.
16. Doctrine “Joint Logistics”, SP 4-00(30)03.01.
17. Doctrine “Employment of Logistics Forces”, VCP 4-32(03).01.
18. Doctrine “Logistics Forces”, VCP 4-32(41).01.
19. Doctrine on Logistical Support of the Land Forces of the Armed Forces of Ukraine, VCP 4-00(11).01.
20. Doctrine “On the Organisation of Movements and Transport in the Armed Forces of Ukraine”, VCP 4-00(03).01.
21. Doctrine “Provision of Material-Technical Resources, Works, and Services”, VCP 4-179(03).01.
22. Combat Regulations “Logistics of the Land Forces of the Armed Forces of Ukraine (Tactical Level)”, BP 4-32(11).01.
23. Combat Regulations “Logistical Operations of the Armed Forces of Ukraine (Tactical Level)”, BP 4-146(11).01.
24. Combat Regulations “Operations for the Deployment of Forces (Tactical Level)”, BP 4-147(11).01.

25. Doctrine “Infrastructure Support for the Defence Forces of the State”, VCP 4-144(03).01.
26. Procedure “Work of the Commander and Staff of the Tactical Command Level in Planning Combat (Operations) According to NATO Standard Operating Procedures” (Brigade (Regiment) Headquarters, Battalion, and Equivalents), TCP 3-(00)152(03).01.
27. Methodological Recommendations on Planning and Organising Combat According to NATO Standards (Brigade (Battalion) Headquarters and Equivalents), VP 7(5)-00(11)03.01.
28. On Approval of the Temporary Procedure for Preparing Operational (Combat) Documents, approved by Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 140 dated 11.09.2020.
29. On Approval of the Regulation on Military Transport by Rail, Sea, River, and Air Transport: Order of the Ministry of Defence of Ukraine No. 595 dated 05.09.2013.
30. R.V. Bulgakov. Specialised LOGFAS Software. Part I. Logistical Reporting: Study Guide. Odesa: Military Academy (Odesa), 2023, 80 p.

Supplementary:

31. Logistical Support of a Mechanised (Tank) Battalion in Combat and Other Operations. Part I. Logistical Support: Study Guide / Y.A. Ivanchenko et al.; edited by H.I. Kryvohuz. Odesa: Military Academy, 2018, 316 p.
32. Preparation and Maintenance of Combat Documents for Logistical Support (by Logistics Services) of a Military Unit (Subunit): Study Guide / O.M. Masliy et al.; edited by H.I. Kryvohuz. Odesa: Military Academy, 2020, 190 p.
33. Military Logistics. Fundamentals of Logistical Support for Military Units (Subunits), Tactical Groups: Kyiv: Logistics of the Armed Forces of Ukraine, 2015, 270 p.

Titles of topics and distribution of study time by types of academic activities.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
		120	120		SECTION 1. Fundamentals of Logistical Support for Troops (Forces).
		16	16		Topic 1. General Provisions of Logistical Support Organisation
1.	Lecture	2	2		Lesson 1. Comprehensive Support for Combat and Routine Activities of Military Units 1. Comprehensive support for combat and routine activities of military units. 2. Logistical support system of the Armed Forces of Ukraine.
2.	Lecture	2	2		Lesson 2. Logistics: Basic Concepts 1. Concept of logistics. 2. Functional areas of logistics. 3. Object, subject, basic concepts, and tasks of logistics.
3.	Group Session	2	2		Lesson 3. Rear Services Support System for Troop Operations 1. Tasks, types, and objects of the rear services support system for troop operations. 2. Rear services support measures for a military unit.
4.	Group Session	2	2		Lesson 4. Forces and Means of Rear Services Support 1. Forces and means of rear services support at the military level. 2. Forces and means of rear services support at the operational level. 3. Forces and means of rear services support at the strategic level.
5.	Group Session	2	2		Lesson 5. Technical Support System for Troop Operations 1. Concept of the technical support system for troop operations. 2. Technical support measures for a military unit.
6.	Group Session	2	2		Lesson 6. Forces and Means of Technical Support 1. Forces and means of technical support at the military level. 2. Forces and means of technical support at the operational level. 3. Forces and means of technical support at the strategic level.
7.	Group Session	2	2		Lesson 7. Symbols Used in Logistical Support Documents 1. General requirements for applying symbols. Amplifiers. 2. Symbols used in logistical support documents
8.	Seminar	2	2		Lesson 8. Organisation of Logistical Support for Troop (Force) Operations 1. Comprehensive support for combat and routine activities of military units.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. Rear services support system for troop operations. 3. Technical support system for troop operations.
		10	10		Topic 2. Organization and management of military economy.
9.	Group Session	2	2		Lesson 1. Fundamentals of organising and managing the military economy in a military unit 1. Tasks, structure, and development trends of the military economy. 2. Fundamentals of organising, managing, and leading the military economy in a military unit. 3. Organisation and management of company-level economy.
10.	Practical Session	4	4		Lesson 2. Company premises and their maintenance 1. Maintenance of sleeping quarters for personnel. 2. Maintenance of the utility service room. 3. Maintenance of the room for storing company property and personal belongings of servicemen. 4. Maintenance of the washroom, toilet, shower, and drying room for uniforms and footwear.
11.	Group Session	2	2		Lesson 3. Fundamentals of organising and managing the military economy of military units during training centres, camps, and exercises 1. Organisation of the work of military unit services for preparing and maintaining training centres (camps) and supporting troops during their stay. 2. Provision of military units with material-technical resources and rear services during their stay in training centres and camps. 3. Support for exercises. The role of rear services in exercises.
12.	Seminar	2	2		Lesson 4. Organisation and Management of Military Economy 1. Fundamentals of organising and managing the military economy in a military unit. 2. Organisation and management of company-level economy. 3. Fundamentals of organising and managing the military economy of military units during training centres, camps, and exercises.
		20	20		Topic 3. Organisation of provision with material-technical resources, works, and services
13.	Group Session	2	2		Lesson 1. General Provisions for Providing Material-Technical Resources, Works, and Services 1. Purpose, principles, and functions of providing troops with material-technical resources, works, and services. 2. Session of supply for material-technical resources.
14.	Group Session	2	2		Lesson 2. Material resources and their reserves 1. Reserves of material resources. 2. Calculation and supply units. 3. Norms for accumulation, maintenance, and echeloning of material resource reserves.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
15.	Group Session	2	2		Lesson 3. Material support for troops 1. Planning of troop support. Initial data for planning. 2. Procedure for equipping troops with material resources.
16.	Group Session	2	2		Lesson 4. Rear services technical means 1. Rear services technical means by types of support. 2. Procedure for equipping troops with technical means.
17.	Practical Session	4	4		Lesson 5. Compilation of calculations for providing material-technical resources (by specialisations) 1. Methodology for calculating the provision of material-technical resources. 2. Calculation of the provision of material-technical resources.
18.	Group Session	4	4		Lesson 6. Material support units of a military unit 1. Purpose, tasks, capabilities, and organisational structure of the material support platoon. 2. Purpose, tasks, capabilities, and organisational structure of the material support battalion.
19.	Group Session	2	2		Lesson 7. Technical support units of a military unit 1. Purpose, tasks, capabilities, and organisational structure of the technical support platoon. 2. Purpose, tasks, capabilities, and organisational structure of the repair and restoration battalion.
20.	Seminar	2	2		Lesson 8. Provision with material-technical resources, works, and services 1. Material resources and their reserves. 2. Material support for troops. 3. Material support units of a military unit.
		14	14		Topic 4. Organisation of transport support for troops
21.	Lecture	2	2		Lesson 1. System for organising movements and transport 1. Fundamentals of organising military transport. Types of transport. 2. Structure of transport support bodies.
22.	Group Session	2	2		Lesson 2. Organisation of military road transport (MRT) 1. Main provisions for organising military road transport. 2. Organisation of loading and unloading operations. 3. Principles of organising the delivery and evacuation of material resources.
23.	Group Session	2	2		Lesson 3. Forces and means of transport support 1. Purpose, tasks, capabilities, and organisational structure of a separate automobile battalion. 2. Purpose, tasks, capabilities, and organisational structure of a separate automobile brigade.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
24.	Group Session	2	2		Lesson 4. Rules for transporting hazardous cargo 1. Regulatory documents on the transportation of hazardous cargo. 2. Main provisions for organising the transportation of hazardous cargo.
25.	Group Session	2	2		Lesson 5. Organisation of military transport by rail, water, and air 1. Main requirements for transporting troops. 2. Calculations for troop transport and loading. Logistical support.
26.	Consultation	2	2		Lesson 6. Consultation.
27.	Seminar	2	2		Lesson 7. Organisation of transport support for troops 1. System for organising movements and transport (transportation). 2. Organisation of military road transport. 3. Organisation of military transport by rail, water, and air.
		30	30		Topic 5. Fundamentals of employment of material support forces and means.
28.	Lecture	2	2		Lesson 1. General support on the work of logistics support services during preparation and conduct of combat operations 1. Duties of military unit officials in organising logistical support. 2. Combat and planning documents for logistical support.
29.	Group Session	2	2		Lesson 2. Fundamentals of logistical support for military units and subunits in combat and other operations 1. Preparation, deployment, and movement of rear services. Routes for delivery and evacuation. 2. Organisation of rear reconnaissance and logistics interaction. 3. Use of the local industrial base for troop support and addressing other tasks.
30.	Group Session	2	2		Lesson 3. Organisation of logistical support for a military unit during preparation and conduct of combat 1. Content of logistical support measures during preparation for combat. 2. Actions of logistical support forces and means during combat. 3. Temporary rear support bodies.
31.	Group Session	2	2		Lesson 4. Organisation of material resources delivery 1. Principles and conditions for organising the delivery of material resources. 2. Forces and means of delivery, fundamentals of their employment in combat. 3. Work of military unit officials in planning and organising delivery and evacuation.
32.	Group Session	4	4		Lesson 5. Maintaining the operational map of the logistics support service chief 1. Procedure for preparing and maintaining the operational map. 2. Preparation of the operational map for combat (march) preparation.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
33.	Group Session	4	4		Lesson 6. Organisation of protection, security, and defence of material support units 1. Organisation of protection and camouflage of material support units. 2. Organisation of security and defence of the deployment area of material support units. 3. Plan for protection, security, and defence of the material support unit.
34.	Practical Session	6	6		Lesson 7. Organisation of protection, security, and defence of the material support platoon 1. Selection and justification of the unit's deployment location. 2. Development of the security and defence plan for the deployment area of the material support unit.
35.	Seminar	2	2		Lesson 8. Organisation of logistical support for a military unit during preparation and conduct of combat 1. Actions of logistical support forces and means during combat. 2. Organisation of material resources delivery. 3. Organisation of protection, security, and defence of material support units.
36.	Group Session	2	2		Lesson 9. Features of logistical support for troop operations in various conditions 1. Features of logistical support for troop operations at night. 2. Features of logistical support for troop operations in winter. 3. Features of logistical support for troop operations in forested and mountainous terrain.
37.	Group Session	2	2		Lesson 10. Features of logistical support for troop operations during Ukraine's repulsion of open russian aggression 1. Features of preparation, deployment, and movement of logistics units. 2. Features of providing troops with material-technical resources and services. 3. Features of managing logistical support (by rear services) of a mechanised brigade.
38.	Seminar	2	2		Lesson 11. Features of logistical support for military formations in peacekeeping operations and armed conflicts 1. Features of logistical support for NATO military formations in peacekeeping operations. 2. Features of logistical support for Ukrainian Armed Forces contingents in peacekeeping operations. 3. Features of logistical support for troops during the Armenian-Azerbaijani conflict.
		34	30	4	Topic 6. Certification course for professional development on the use of NATO specialised software LOGFAS.
39.	Group Session	2	2		Lesson 1. Introduction to the LOGFAS course 1. Familiarisation of participants with the course structure. 2. ENTRY ASSESSMENT.
40.	Group Session	5	4		Lesson 2. Overview of specialised software LOGFAS 1. Purpose, tasks addressed, and toolset.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. Demonstration of LOGFAS software capabilities. 3. Structure of material-technical assistance accounting in the Armed Forces of Ukraine. 4. Installation of LOGFAS software version 7.2.0.
				1	LOGFAS Terminology. 1. Glossary of key terms.
41.	Group Session	2	2		Lesson 3. LOGFAS connection manager (lcm) module 1. Creation, editing, and deletion of databases. 2. Export and import of databases. 3. Database updates. Concept of network operations.
42.	Group Session	5	4		Lesson 4. Geographical data management module (GEOMAN) 1. Configuration of the GEOMAN module. 2. Creation, editing, and deletion of data on logistical infrastructure objects. 3. Export and import of geographical data.
				1	LOGFAS Terminology. 1. Glossary of key terms.
43.	Group Session	7	6		Lesson 5. LOGFAS data management module (LDM) 1. Configuration of the LDM module. 2. Creation, editing, and deletion of forces and means. 3. Management of data slices (force readiness profiles). 4. Export and import of data on forces and means. 5. Exchange of data slices (reports).
				1	Concept of Reportable Item Code (RIC). 1. Working with RIC databases. Units of measurement.
44.	Practical Session	7	6		Lesson 6. Practical training on using LOGFAS Software Tools 1. Comprehensive task (Mission #1). 2. Common operator errors when working with LOGFAS software, system failures, and methods for their resolution.
				1	Material-Technical Assistance Accounting. 1. Review of material. Preparation for the final assessment.
45.	Practical Session	2	2		Lesson 9. Operator workflow algorithm for LOGFAS software 1. Workflow algorithm in the LCM module.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. Workflow algorithm in the GEOMAN module. 3. Workflow algorithm in the LDM module.
46.	Practical Session	4	4		Lesson 11. Final assessment 1. Comprehensive task (Mission #2). 2. Certification of participants.
		80	74	6	SECTION 2. Logistical support of combat operations.
		16	16		Topic 7. Organisation of logistical support for mobilisation and bringing a military unit to combat readiness.
47.	Lecture	2	2		Lesson 1. Mobilisation and bringing a military unit to combat readiness 1. General provisions for mobilisation deployment of troops. 2. Organisation of logistical support for mobilisation and bringing a military unit to combat readiness
48.	Group Session	2	2		Lesson 2. Organization of material support for mobilization and bringing the military unit to combat readiness. 1. Material and technical support for mobilization and bringing the military unit to combat readiness. 2. The procedure for creating, storing, updating (replacing), using indestructible stocks of material and technical means. 3. Norms for the maintenance of indestructible stocks of material and technical means for mobilization and bringing the military unit into combat readiness.
49.	Group Session	2	2		Lesson 3. Documents for logistical support of mobilisation and bringing a military unit to combat readiness 1. Personal documents of the logistics support service chief regarding mobilisation and bringing a military unit to combat readiness. 2. Methodologies for conducting calculations. 3. Logistical support for combat coordination of a military unit.
50.	Practical Session	2	2		Lesson 4. Development of planning documents for logistical support of mobilisation and bringing a military unit to combat readiness (by specialisations) 1. Development of the calendar plan of key measures for the logistics service chief.
51.	Practical Session	6	6		Lesson 5. Development of calculation-reference documents for logistical support of mobilisation and bringing a military unit to combat readiness (by specialisations) 1. Compilation of the calculation-schedule for the removal of material resource reserves to the concentration area. 2. Compilation of the calculation for the replenishment of material resource reserves of a military unit. 3. Compilation of the calculation for providing material-technical resources for the service. 4. Compilation of other calculations: Calculation for issuing technical means of the service to subunits. Calculation-schedule for the conservation and preparation of technical means of the service for use.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					Calculation for the surrender of surplus technical means of the service. Calculation for organising meals, bread, and water supply for personnel.
52.	Group Session	2	2		Lesson 6. Organisation of logistical support for mobilisation and bringing a military unit to combat readiness 1. General provisions for mobilisation deployment of troops. 2. Organisation of logistical support for mobilisation and bringing a military unit to combat readiness.
		16	14	2	Topic 8. NATO Standard Operating Procedures.
53.	Group Session	2	2		Lesson 1. Methods and content of the work of logistics support management bodies of military units 1. Methods of work of logistics support management bodies. 2. Sequence and content of the work of logistics support management bodies
54.	Group Session	2	2		Lesson 2. General principles of the military decision-making process (MDMP) 1. History of the development of operations planning (conduct of combat operations) in NATO member states. 2. Combat documents.
55.	Group Session	2	2		Lesson 3. STAGE 1. Receipt of mission 1. Preparation (collection) of initial data, identification of priority measures for preparing logistics units for combat (march). 2. Time calculation. Orientation of subordinates for combat (march) preparation. 3. Plotting the initial tactical-logistical situation on the logistics chief's operational map. 4. Development of logistical support proposals for the preliminary order WARNO#1.
56.	Group Session	2	2		Lesson 4. STAGE 2. Mission analysis. Part 1 1. Comprehension of the task assigned by the higher management body and the commander. 2. Tasks and procedure for conducting logistical reconnaissance.
57.	Group Session	4	2		Lesson 5. STAGE 2. Mission analysis. Part 2 1. Situation assessment and conclusions drawn from it. 2. Calculations of the military unit's needs and supply of material resources. 3. Development of logistical support proposals for the preliminary order WARNO#2.
				2	Preparation of the Logistics Management Body (LMB) for developing the logistical support concept: 1. Content of the concept for employing logistics units. 2. Formalised document of the concept for employing logistics units.
58.	Group Session	2	2		Lesson 6. STAGES 3-6 1. Development of courses of action (COAs). 2. Analysis of courses of action (war gaming/modelling).

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					3. Comparison of courses of action. 4. Approval of the course of action.
59.	Group Session	2	2		Lesson 7. STAGE 7. Development of the logistical support plan. Orders production, dissemination, and transition 1. Development, coordination, and approval of the logistical support plan. 2. Refinement and amendments to OPLAN/OPORD.
	Group Session	24	24		Topic 9. Organization of logistical support for a military unit on the march.
60.	Group Session	2	2		Lesson 1. Logistical support measures for military units in combat and other operations 1. Preparation, deployment, and movement of rear services. Routes for delivery and evacuation. 2. Organisation of logistical (rear) reconnaissance and logistics interaction (by rear services). 3. Use of the local industrial-economic base for troop support and addressing other tasks.
61.	Group Session	2	2		Lesson 2. Logistic support of a mechanised brigade on the march 1. Preparation and march order of logistic services on the march. Protection, security, and defence of logistic services. 2. Material support of the brigade during preparation and conduct of the march. 3. Management of logistic services.
		20	20		Comprehensive Tactical Task No. 1 “Logistical Support of a Military Unit on the March”.
62.	Group Session	4	4		Lesson 3. STAGE 1. Receipt of mission 1. Preparation (collection) of initial data, identification of priority measures for preparing logistics units for the march. 2. Time calculation. Orientation of subordinates for march preparation. 3. Plotting the initial tactical-logistical situation on the logistics chief’s operational map. 4. Development of logistical support proposals for the preliminary order WARNO#1.
63.	Group Session	4	4		Lesson 4. STAGE 2. Mission analysis. Part 1 1. Comprehension of the task assigned by the higher management body and the commander. 2. Tasks and procedure for conducting logistical reconnaissance.
64.	Group Session	4	4		Lesson 5. STAGE 2. Mission analysis. Part 2 1. Situation assessment and conclusions drawn from it. 2. Calculations of the military unit’s needs and supply of material resources. 3. Development of logistical support proposals for the preliminary order WARNO#2.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
65.	Group Session	2	2		Lesson 6. STAGES 3-6 1. Development of courses of action (COAs). 2. Analysis of courses of action (war gaming/modelling). 3. Comparison of courses of action. 4. Approval of the course of action.
66.	Group Session	4	4		Lesson 7. STAGE 7. Development of the Logistical Support Plan. Orders Production, Dissemination, and Transition 1. Development, coordination, and approval of the logistical support plan. 2. Refinement and amendments to OPLAN/OPORD.
67.	Group Session	2	2		Lesson 8. Management of logistics units of a military unit during the march 1. Management of logistics units during the march. 2. Situational tasks (actions based on directives).
		24	20	4	Topic 10. Organisation of Logistical Support for a Military Unit in Defence
		24	20	4	Comprehensive Tactical Task No. 2 “Logistical Support of a Military Unit in Defence”.
68.	Group Session	4	4		Lesson 1. STAGE 1. Receipt of Mission 1. Preparation (collection) of initial data, identification of priority measures for preparing logistics units for defence. 2. Time calculation. Orientation of subordinates for defence preparation. 3. Plotting the initial tactical-logistical situation on the logistics chief’s operational map. 4. Development of logistical support proposals for the preliminary order WARNO#1.
69.	Group Session	2	2		Lesson 2. STAGE 2. Mission analysis. Part 1 1. Comprehension of the task assigned by the higher management body and the commander. 2. Tasks and procedure for conducting logistical reconnaissance.
70.	Group Session	2	2		Lesson 3. STAGE 2. Mission analysis. Part 2 1. Situation assessment and conclusions drawn from it. 2. Calculations of the military unit’s needs and supply of material resources. 3. Development of logistical support proposals for the preliminary order WARNO#2.
71.	Group Session	4	2		Lesson 4. STAGES 3-6 1. Development of courses of action (COAs). 2. Analysis of courses of action (war gaming/modelling). 3. Comparison of courses of action.

No.	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	
1	2	3	4	5	6
					4. Approval of the course of action.
				2	Selection of the Course of Action Method and Conducting a Briefing: 1. Selection of the method for conducting the war gaming of courses of action.
72.	Group Session	6	4		Lesson 5. STAGE 7. Development of the logistical support plan. Orders production, dissemination, and transition 1. Development, coordination, and approval of the logistical support plan. 2. Refinement and amendments to OPLAN/OPORD.
				2	Preparation of the Logistics Management Body (LMB) for Managing Logistics Units During Defence: 1. Communication organisation scheme, control, and interaction signals.
73.	Group Session	2	2		Lesson 6. Management of Logistics Units of a Military Unit During Defence 1. Management of logistics units during defence. 2. Situational tasks (actions based on directives).
Total per discipline		200	194	6	

Programme of the discipline
MS 01 "APPLICATION AND QUALITY CONTROL OF FUEL AND LUBRICANTS "

General Objective of the Educational Programme Component:

To provide knowledge of the processes for quality control of fuel and lubricants in subordinate units of a military unit; to develop skills in planning fuel quality control using standard operating procedures; to master rational methods of work for a fuel service officer, fostering creative thinking to solve complex professional tasks; and to consolidate diverse knowledge into a unified toolkit for successfully performing the duties of a tactical-level fuel service officer.

Upon completion of the educational programme component, the participant should:

Know:

The origin, extraction methods, classification of petroleum and petroleum products, their composition, physico-chemical properties, and methods and techniques for producing fuel, lubricants, and special technical fluids.

The procedure and norms for providing military units with fuel, lubricants, and technical means of the fuel service in peacetime and wartime.

How to use modern information technologies for planning, accounting, and reporting in the fuel service.

Effective methods for using fuel and lubricants.

Proper application and safe operation of technical means of the fuel and lubricants service in military unit subunits.

Be able to:

Correctly use fuel, lubricants, and special technical fluids according to their intended purpose.

Organise the receipt, storage, acquisition, issuance, and accounting of fuel service material resources, as well as refuelling of armament and military equipment in stationary and field conditions.

Determine the quantity and quality of light and heavy petroleum products in the reservoir parks of military units and support centres, and properly store fuel and lubricants.

Conduct sampling of light petroleum products and submit them for testing.

Work in coordination with chiefs of branches of troops and services of the military unit in performing fuel service tasks related to fuel provision and quality control.

Organisational and Methodological Guidelines:

The teaching methodology of the educational component is based on the fundamental principles of didactics (the theory of justification and learning). It provides a scientific-pedagogical description of the forms and methods of teaching, identifies the most appropriate combinations to achieve the desired 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 instruction:

Frontal form of instruction, where all participants, under the supervision of the instructor, perform the same task simultaneously.

Group form of instruction, where participants are organised into groups (units) based on the standard structure of the unit, working in parallel.

Individual form of instruction, where participants perform tasks sequentially, one after another.

Depending on the need to achieve specific levels of knowledge or skills, the instructor should use the following methods:

Verbal-visual method;

Training method;

Situational-cognitive method.

The **verbal-visual method** involves the instructor systematically and sequentially presenting the instructional material, demonstrating the objects being studied to provide learners with new knowledge and form appropriate understanding.

The **training (reproductive) method** involves performing complex actions according to a pre-established algorithm set by the lesson leader to develop necessary skills and ensure the coherence of military-organisational structures.

The **situational-cognitive method** involves reviewing and discussing real (or likely) actions, familiarising learners with the experience of managing forces in military conflicts, and developing skills in information-analytical activities.

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

Problem-based teaching involves the lesson leader presenting a problem to the learners, solving it themselves while demonstrating the solution process and revealing their thought process. The direct result of problem-based teaching should be the learner's assimilation of the method and logic of solving a specific problem, though not yet with the ability to apply it independently. This method teaches learners how to seek knowledge, helping them acquire skills in creative thinking.

The **search (heuristic) method** aims to gradually guide learners toward independently solving problems by first teaching them to perform individual elements of the solution. It is used during group exercises, where the lesson leader determines the approach to finding the optimal solution, but the learner finds the solution themselves.

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

Material and Technical Support:

Sessions should be conducted in specialised classrooms equipped with personal computing equipment at a ratio of one workstation per two participants and at the training process support centre's training ground. The use of technical teaching aids is mandatory during instructional sessions.

Information and Methodological Support:

1. Statute of the Internal Service of the Armed Forces of Ukraine: Law No. 548-XIV dated 24.03.1999 // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Updated: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed: 28.07.2020).
2. Resolution of the Cabinet of Ministers of Ukraine No. 686 dated 05.08.2020 "On Approval of Norms for Losses of Petroleum Products During Their Receipt, Storage, Issuance, Loading, and Transportation" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 30.08.2020).
3. Resolution of the Cabinet of Ministers of Ukraine No. 1041-012 dated 28.07.2006 "On Approval of the Procedure for Creation, Maintenance, and Use of Permanent Reserves of Armament, Military Equipment, Ammunition, and Other Material Resources in the Armed Forces of Ukraine".
4. Resolution of the Cabinet of Ministers of Ukraine No. 748 dated 03.05.2000 "On Approval of the Regulation on the Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 28.07.2020).

5. Resolution of the Cabinet of Ministers of Ukraine No. 1225 dated 04.08.2000 “On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off, and Use of Military Property in the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html (accessed: 28.07.2020).
6. Resolution of the Cabinet of Ministers of Ukraine No. 759 dated 29.05.1998 (with amendments) “On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html (accessed: 28.07.2020).
7. Law of Ukraine “On Material Liability of Servicemen and Persons Equated to Them for Damage Caused to the State” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. No. 1417-IX dated 27.04.2021. URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed: 08.08.2021).
8. Resolution of the Cabinet of Ministers of Ukraine No. 604 dated 15.07.2020 “On Approval of the List of Armament, Weapons, and Ammunition, the Shortage or Theft of Which is Compensated by the Guilty Parties at a Multiple of Their Cost” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed: 08.08.2021).
9. Order of the Deputy Minister of Defence of Ukraine – Chief of Logistics of the Armed Forces No. 112 dated 12.11.1998 “On Approval of the Guide on the Operation of Military Fuel Depots of the Armed Forces of Ukraine”.
10. Order of the Ministry of Finance of Ukraine No. 572 dated 17.06.2015 “On Approval of Standard Forms for Reflecting the Results of Inventory by Budgetary Institutions”.
11. Order of the Minister of Defence of Ukraine No. 300 dated 16.07.1997 “On Approval of the Regulation on the Military Economy of the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed: 28.07.2020).
12. Order of the Ministry of Defence of Ukraine No. 440 dated 17.08.2017 “On Approval of the Instruction on Accounting of Military Property in the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. Updated: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed: 28.07.2020).
13. Order of the Minister of Defence of Ukraine No. 81 dated 29.03.2021 “On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed: 10.08.2021).
14. Order of the Ministry of Defence of Ukraine No. 590 dated 12.11.2010 “Regulation on the Financial Economy of a Military Unit of the Armed Forces of Ukraine”.
15. Order of the Ministry of Defence of Ukraine No. 905 dated 19.12.2014 “On Approval of the Instruction on the Organisation and Maintenance of Accounting in the Armed Forces of Ukraine”. URL: <https://studfile.net/preview/2265825/> (accessed: 28.07.2020).
16. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 40 dated 31.01.2024 “On Approval of the Instruction on Record-Keeping in the Armed Forces of Ukraine”. URL: https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukrajini/5-1-0-19 (accessed: 15.04.2024).

17. Order of the Ministry of Defence of Ukraine No. 474 dated 28.08.2019 “On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating Document Retention Periods”. URL: https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf (accessed: 10.08.2021).
18. Order of the Ministry of Defence of Ukraine No. 01 dated 06.01.1999 “On Establishing Norms for the Consumption of Fuel, Oils, Lubricants, and Special Fluids During the Operation, Repair, and Preservation of Military Equipment and Armament of the Armed Forces of Ukraine”.
19. Order of the Ministry of Defence of Ukraine No. 513 dated 13.10.2009 “On Approval of Amendments to the Order of the Minister of Defence of Ukraine No. 01 dated 06.01.1999”.
20. Order of the Ministry of Defence of Ukraine No. 686 dated 14.12.2007 “On Approval of the Instruction on the Organisation of Representation of the Interests of the Ministry of Defence of Ukraine, Military Management Bodies, Army Corps, Air Commands, Formations, Military Units, Military Educational Institutions, Establishments, and Organisations of the Armed Forces of Ukraine During Court Proceedings, Conducting Claim-Litigation Work, and Executing Court Decisions”.
21. Order of the Ministry of Defence of Ukraine No. 596 dated 09.11.2016 “On Approval of the Instruction on the Organisation of Transfer of Armament, Military Equipment, and Property for Repair”.
22. Order of the Ministry of Defence of Ukraine No. 374dsk dated 11.06.2014 “On Approval of the List of Support Kits for Standard Technical Means and Property of the Fuel and Lubricants Service for the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime”.
23. Joint Order of the Ministry of Defence of Ukraine and Other Ministries No. 791 dated 17.12.2016 “On Approval of the Procedure for Settlements for Received Fuel and Lubricants and Food Products Between Entities Directly Engaged in Combating Terrorism in the Area of the Anti-Terrorist Operation”.
24. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 60 dated 23.05.2000 “On the Introduction of the Instruction on Conducting Documentary Audits (Inspections) of the Fuel Service of a Military Unit, Depot, Base, and Fuel Support Centre”.
25. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 7 dated 11.04.1994 “On the Introduction of the Instruction on Handling Toxic Technical Fluids”.
26. Order of the Deputy Minister of Defence of Ukraine for Logistics No. 24 dated 02.02.1994 “On the Introduction of the Guide on Handling Ethyl Alcohol”.
27. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 45 dated 30.05.1997 “On the Organisation of Operation and Inspection of the Condition of Technical Means of the Fuel Service of the Armed Forces of Ukraine”.
28. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 46 dated 30.05.1997 “On the Organisation of Mass Fuel Issuance to Automotive Transport”.
29. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 112 dated 12.11.1998 “On Approval of the Guide on the Operation of Military Fuel Depots of the Armed Forces of Ukraine”.
30. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 85 dated 31.08.2020 “On Approval and Introduction of Methodological Recommendations on Determining the Need for Armament, Military Equipment, Material-Technical Resources by Supply Session, Land Plots, and Troop Deployment Required for Preparation and Execution of Tasks to Repel Armed Aggression”.

31. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 dated 30.12.2016 “On Approval of the Instruction on Establishing Service Life Until Repair and Write-Off of Technical Means of the Fuel and Lubricants Service”.
32. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 509 dated 30.12.2016 “Guide on the Organisation of Operation of Fuel Support Centres, Bases, and Depots of the Armed Forces of Ukraine”.
33. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 340 dated 29.08.2016 “On Approval of the Instruction on the Organisation of Internal Control in the Armed Forces of Ukraine”.
34. Order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine No. 55 dated 12.04.2010 “On Approval and Introduction of the Table of Urgent Reports on Operational and Material-Technical Support of Troops (Forces) in Peacetime” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0 (accessed: 28.07.2020).
35. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 dated 01.01.2024 “On Approval of the Regulation on the Provision of Fuel and Lubricants Service Property in the Armed Forces of Ukraine”.
36. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 dated 04.01.2024 “On Approval of the Instruction on the Quality of Fuel, Lubricants, and Special Fluids in the Armed Forces of Ukraine”.
37. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 196 dated 13.07.2023 “On Approval of Norms for the Consumption of Fuel and Lubricants During the Operation of Aviation Equipment in the Armed Forces of Ukraine”.
38. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 222 dated 14.12.2020 “On Approval of Norms for the Consumption of Fuel and Lubricants During the Operation of Ships, Boats (Vessels) of the Naval Forces of the Armed Forces of Ukraine”.
39. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 dated 15.04.2023 “On Establishing Year-Round Use of Low-Freezing Cooling Fluids in Armament and Military Equipment of the Armed Forces of Ukraine”.
40. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 36/ dated 23.01.2024 “On Approval of the Table of Urgent Reports of the Armed Forces of Ukraine”.
41. Guide on the Storage of Technical Means of the Fuel Service. Kyiv: Varta, 2000.
42. Main Provisions for Providing Military Units with Fuel and Lubricants. Publishing, 2009.
43. Recommendations on Planning Fuel Support for Military Units and Formations. Military Publishing, 1992.

Titles of topics and distribution of study time by types of academic activities.

№	Types of academic activities, assessment methods	Total hours	Among them		Types of academic activities, assessment methods
			Classroom hours	Independent work	

		40	30	10	Section 1. Fundamentals of Fuel Application
		2	2		Introduction
1	Lecture	2	2		Introduction. 1. Introduction to the specialty of the fuel service chief of a military unit. 2. Purpose, tasks, and brief content of the course.
		6	4	2	Topic 1. Prospects for the Development of Fuel Application Science
2	Lecture	3	2		Lesson 1. Current State and Prospects for the Development of Fuel Application Science 1. State and prospects of fuel application science development. 2. Application of fuel quality requirements. 3. Classification and general fuel quality requirements.
				1	1. Classification of fuel used in military equipment.
3	Lecture	3	2		Lesson 2. Fundamentals of Fuel Application 1. Concept of the main operational properties of fuel. 2. Methods for evaluating the operational properties of fuel.
				1	1. Concept of the main operational properties of fuel..
		10	8	2	Topic 2. Gasoline.
4	Lecture	4	2		Lesson 1. Conditions of Use and Quality Requirements for Gasoline 1. Conditions of use and quality requirements for gasoline. 2. Normal and detonation combustion. 3. Grades and applications of automotive gasoline.
				2	1. Normal and detonation combustion. 2. Conditions of use and quality requirements for aviation gasoline.
5	Laboratory Session	6	6		Lesson 2. Determination of Gasoline Quality Indicators 1. Preparation for conducting laboratory tests. 2. Conducting laboratory tests.
		4	2	2	Topic 3. Heavy Boiler Fuels.
6	Lecture	4	2		Lesson 1. Conditions of Use and Quality Requirements for Boiler Fuels 1. Conditions of use for boiler fuels. 2. Quality requirements for boiler fuels.
				2	1. Conditions of the use of boiler fuels.
		12	8	4	Topic 4. Diesel fuels.
7	Lecture	6	2		Lesson 1. Conditions of Use and Quality Requirements for Diesel Fuels 1. Grades, composition, and application of diesel fuels for high-speed diesels. 2. Grades, composition, and application of diesel fuels for high-speed and low-speed diesels. 3. Mixtures of diesel fuels used.
				4	1. Grades, composition, and application of diesel fuels for high-speed and low-speed diesels. 2. Mixtures of diesel fuels used. 3. Grades, composition, and application of prospective diesel fuels.

8	Laboratory Session	4	4		Lesson 2. Determination of Key Quality Indicators for Diesel Fuels 1. Preparation for conducting laboratory tests. 2. Conducting laboratory tests.
Semester 6					
		60	30	30	
		13	10	3	Topic 5. Fuels for Aviation Gas Turbine Engines
9	Lecture	4	2		Lesson 1. Conditions of Use and Quality Requirements for Jet Fuels 1. Conditions of use for jet fuels. 2. Quality requirements for jet fuels.
			2		1. Quality requirements for jet fuels. 2. Grades, composition, and application of jet fuels for subsonic aviation.
12	Group Session	3	2		Lesson 2. Main Operational Properties of Aviation Gas Turbine Fuels 1. Energy properties. 2. Stability. 3. Anti-wear properties.
			1		1. Key quality indicators for jet fuels.
11	Laboratory Session	4	4		Lesson 3. Determination of Key Quality Indicators for Fuels for Aviation Gas Turbine Engines 1. Preparation for conducting laboratory tests. 2. Conducting laboratory tests.
12	Group Session	2	2		Lesson 4. Final Lesson on the Topic: Fuels for Aviation Gas Turbine Engines
		3	2	1	Topic 6. Sampling and Documentation of Fuel Samples
13	Practical Session	3	2		Lesson 1. Procedure for Fuel Sampling 1. Devices for fuel sampling. 2. Procedure for fuel sampling. 3. Documentation of sampled fuel with an act.
			1		1. Fuel sampling procedure.
		5	4	1	Topic 7. Theoretical Foundations of Lubricant Application.
14	Lecture	3	2		Lesson 1. Main Hydrodynamic Theories of Lubricant Application 1. Hydrodynamic theory of lubricant application. 2. Purpose of lubricating oils. 3. Conditions of use for lubricating oils. 4. Quality requirements for lubricating oils.
			1		1. Hydrodynamic theory of lubricant application.
15	Group Session	2	2		Lesson 2. Application of Engine Oils 1. Grades, composition, and application of oils for carburettor engines. 2. Grades, composition, and application of oils for diesel engines.
		5	4	1	Topic 8. Transmission Oils
16	Lecture	2	2		Lesson 1. Operational Properties of Transmission Oils 1. Conditions of use and quality requirements for transmission oils. 2. Transmission oils for hydromechanical transmissions.

17	Group Session	3	2		Lesson 2. Grades and Application of Transmission Oils 1. Grades, composition, and application of transmission oils. 2. Transmission oils for hydromechanical transmissions.
				1	1. Quality indicators for universal working-preservation transmission lubricants.
		3	2	1	Topic 9. Greases.
18	Group Session	3	2		Lesson 1. Classification of Greases 1. Classification of greases. 2. Properties of greases.
				1	1. Grades, composition, and application of greases for ground equipment. 2. Grades, composition, and application of greases for aviation and marine equipment.
		16	8	8	Topic 10. Special Technical Fluids
19	Practical Session	4	2		Lesson 1. Special Technical Fluids for Ground Military Equipment 1. Conditions of use and quality requirements for brake fluids. 2. Conditions of use and quality requirements for cooling fluids. 3. Grades, composition, and application of cooling fluids.
				2	1. Grades and key quality indicators for special technical fluids for aviation equipment.
20	Group Session	5	2		Lesson 2. Application of Oils and Special Technical Fluids 1. Conditions of use and quality requirements for brake fluids. 2. Conditions of use and quality requirements for cooling fluids. 3. Grades, composition, and application of cooling fluids.
				3	1. Grades and application of lubricating oils.
21	Laboratory Session	5	2		Lesson 3. Determination of Oil Quality Indicators 1. Preparation for conducting laboratory tests. 2. Conducting laboratory tests.
				3	1. Grades and application of greases and special technical fluids.
22	Control measures	2	2		CREDIT
Semester 7					
		30	20	10	Chapter 3. Quality control of fuels and lubricants.
		30	20	10	Topic 11. Organisation of Quality Control of Fuels, Lubricants, and Special Fluids
23	Lecture	3	2		Lesson 1. Fuel Quality Control in the Armed Forces of Ukraine 1. Purpose and tasks of fuel quality control. 2. Fuel quality control installations.
				1	1. Purpose and tasks of fuel quality control.
24	Lecture	4	2		Lesson 2. Organisation of Fuel Quality Control at a Military Unit Depot 1. Quality control during fuel receipt. 2. Quality control during fuel storage. 3. Quality control during fuel issuance.
				2	1. Quality control during fuel receipt in railway tank cars. 2. Quality control during fuel receipt in storage tanks.

25	Group Session	3	2		Lesson 3. Types of Analyses 1. Control analysis of fuel. 2. Full analysis. 3. Concept of arbitration analysis of fuel.
				1	1. Shipboard qualitative analysis. 2. Shipboard quantitative analysis. 3. Operational analysis.
26	Practical Session	3	2		Lesson 4. Organisation of Fuel Quality Control in a Military Unit 1. Quality control during fuel receipt. 2. Quality control during fuel storage. 3. Quality control during fuel issuance.
				1	1. Documentation of fuel samples in a military unit.
27	Group Session	2	2		Lesson 5. Features of Fuel Quality Control in the Naval Forces 1. Quality control during fuel receipt and storage. 2. Quality control during fuel issuance and ship refuelling.
28	Practical Session	2	2		Lesson 6. Documents for Fuel Quality Control in the Air Forces 1. Quality control during fuel receipt and storage. 2. Quality control during fuel refuelling of aviation equipment.
29	Group Session	3	2		Lesson 7. Features of the Fuel Quality Control System for Aviation Equipment 1. Sampling fuel from aircraft tanks. 2. Procedure for checking fuel quality during aircraft refuelling.
				1	1. Stages of quality control for aviation kerosene. 2. Procedure for storing aviation kerosene with special fluids.
30	Practical Session	3	2		Lesson 8. Field Means for Fuel Quality Control 1. Tactical-technical characteristics of mobile fuel laboratories PLG-2, PLG-3. 2. Tactical-technical characteristics of portable laboratories PL-2m, 8Yu-44. 3. Tactical-technical characteristics of manual laboratories VLK, RL.
				1	1. Deployment sequence for 8Yu-44. 2. Deployment of systems supporting PLG-3 operation. 3. Disassembly of the VLK laboratory.
31	Practical Session	2	2		Lesson 9. Deployment and Disassembly of the Mobile Laboratory PLG-3 1. Deployment sequence for PLG-3. 2. Deployment of systems supporting PLG-3 operation. 3. Disassembly of the PLG-3 laboratory.
32	Practical Session	5	2		Lesson 10. Deployment of the PLG-3 Mobile Laboratory Trailer 1. Deployment sequence for the PLG-3 trailer. 2. Deployment of power supply systems supporting PLG-3 operation.
				3	1. Preparation of the trailer for transportation.
Semester 8					
		45	30	15	Chapter 4. Organisation of Fuel Quality Control and Restoration of Non-Standard Petroleum Products

		31	22	9	Topic 12 . Restoration of Fuel Quality.
33	Lecture	2	2		Lesson 1. Methods and Techniques Applied for Fuel Quality Restoration. 1. Methods for restoring fuel quality. 2. Organisation of work for fuel quality restoration.
34	Group Session	4	2		Lesson 2. Methodology for Calculating Fuel Quality Restoration. 1. Sequence of operations for fuel quality restoration. 2. Organisation of work for fuel quality restoration.
				2	1. Organisation of work for fuel quality restoration..
35	Practical Session	5	2		Lesson 3. Restoration of Non-Standard Fuels and Lubricants Quality. 1. Sequence of operations for fuel quality restoration. 2. Organisation of work for fuel quality restoration.
				3	1. Technological scheme for petroleum product restoration..
36	Practical Session	2	2		Lesson 4. Organisation of Fuel Quality Control and Restoration of Non-Standard Petroleum Products. 1. Organisation of fuel quality control. 2. Methods for restoring non-standard fuel.
37	Laboratory Session	6	6		Content Module 5. Restoration of Fuel and Lubricants Quality. 1. Preparation for conducting laboratory tests. 2. Conducting laboratory tests.
38	Laboratory Session	10	6		Lesson 6. Determination of Quality Indicators in PLG-3. 1. Light petroleum products. 2. Oils and lubricants. 3. Special technical fluids.
				4	1. Methods for restoring non-standard fuel.
39	Group Session	2	2		Lesson 7. Final Lesson on the Topic of Fuel Quality Restoration. 1. Sequence of operations for fuel quality restoration. 2. Organisation of fuel quality control.
		14	8	6	Topic 13. Assessment of Fuel Quality Upon Assuming the Position of Fuel Service Chief (Storage Department Chief)
40	Lecture	2	2		Lesson 1. Assessment of Fuel Quality Upon Assuming the Position of Fuel Service Chief. 1. Documentary assumption of the position of fuel service chief. 2. Documentary assumption of the position of storage department chief.
41	Practical Session	5	2		Lesson 2. Receipt of Fuels and Lubricants at the Fuel Depot. 1. Receipt of light petroleum products. 2. Receipt of heavy petroleum products. 3. Receipt of toxic technical fluids.
				3	1. Verification of documents certifying the quality of fuels and lubricants.
42	Practical Session	2	2		Lesson 3. Verification of Fuel and Toxic Technical Fluids Quality Using the Express Method. 1. Determination of water presence in storage tanks. 2. Determination of mechanical impurities.
				3	1. Determination of fuel quality based on external characteristics.

43	Control measures	2	2		EXAM
	Total for Discipline:	150	100	50	

Programme of the discipline
MOS 02 " ORGANISATION OF ROCKET FUEL AND FUEL SUPPLY"

General Objective of the Educational Programme Component:

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

To acquire basic professional knowledge for performing specialised professional tasks and to develop competence for service activities.

Upon completion of the educational discipline, the course participant should:

Know:

Understand, analyse, and assess the operational environment of the fuel service in daily activities and various types of combat operations of a military unit.

Know the procedures and norms for providing military units with fuels, lubricants, and technical means of the fuel service in peacetime and wartime.

Be proficient in using modern information technologies for planning, accounting, and reporting in the fuel service.

Be familiar with effective methods for using the forces and means of the fuel service.

Understand the organisation and methodology for conducting tactical training sessions.

Be able to:

Organise the receipt, storage, acquisition, issuance, and accounting of fuel service material resources, as well as refuelling of armament and military equipment in stationary and field conditions.

Possess skills for performing technological operations on technical means of the fuel service.

Perform the functions of managing the fuel service of a military unit in peacetime, wartime, and during special periods.

Work in coordination with chiefs of branches of troops and services of the military unit in performing fuel service tasks.

Develop planning, directive, reporting, and other fuel service documents for a military unit.

Conduct training sessions with fuel service specialists for individual training, perform standard procedures, utilise training-material base facilities, and employ technical means for high-quality personnel training.

Organisational and Methodological Guidelines:

The teaching methodology of the educational component is based on the fundamental principles of didactics (the theory of justification and learning). It provides a scientific-pedagogical description of the forms and methods of teaching, identifies the most appropriate combinations to achieve the desired 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 instruction:

Frontal form of instruction, where all participants, under the supervision of the instructor, perform the same task simultaneously.

Group form of instruction, where participants are organised into groups (units) based on the standard structure of the unit, working in parallel.

Individual form of instruction, where participants perform tasks sequentially, one after another.

Depending on the need to achieve specific levels of knowledge or skills, the instructor should use the following methods:

Verbal-visual method, where the instructor systematically and sequentially presents the instructional material, demonstrating the objects being studied to provide learners with new knowledge and form appropriate understanding.

Training (reproductive) method, involving the performance of complex actions according to a pre-established algorithm set by the lesson leader to develop necessary skills and ensure the coherence of military-organisational structures.

Situational-cognitive method, involving the review and discussion of real (or likely) actions, familiarising learners with the experience of managing forces in military conflicts, and developing skills in information-analytical activities.

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

Problem-based teaching involves the lesson leader presenting a problem to the learners, solving it themselves while demonstrating the solution process and revealing their thought process. The direct result of problem-based teaching should be the learner's assimilation of the method and logic of solving a specific problem, though not yet with the ability to apply it independently. This method teaches learners how to seek knowledge, helping them acquire skills in creative thinking.

The **search (heuristic) method** aims to gradually guide learners toward independently solving problems by first teaching them to perform individual elements of the solution. It is used during group exercises, where the lesson leader determines the approach to finding the optimal solution, but the learner finds the solution themselves.

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

Material and Technical Support:

Sessions should be conducted in specialised classrooms equipped with personal computing equipment at a ratio of one workstation per two participants and at the training process support centre's training ground. The use of technical teaching aids is mandatory during instructional sessions.

Information and Methodological Support:

1. Statute of the Internal Service of the Armed Forces of Ukraine: Law No. 548-XIV dated 24.03.1999 // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. Updated: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed: 28.07.2020).
2. Resolution of the Cabinet of Ministers of Ukraine No. 686 dated 05.08.2020 “On Approval of Norms for Losses of Petroleum Products During Their Receipt, Storage, Issuance, Loading, and Transportation” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 30.08.2020).
3. Resolution of the Cabinet of Ministers of Ukraine No. 1041-012 dated 28.07.2006 “On Approval of the Procedure for Creation, Maintenance, and Use of Permanent Reserves of Armament, Military Equipment, Ammunition, and Other Material Resources in the Armed Forces of Ukraine”.
4. Resolution of the Cabinet of Ministers of Ukraine No. 748 dated 03.05.2000 “On Approval of the Regulation on the Inventory of Military Property in the Armed Forces” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 28.07.2020).
5. Resolution of the Cabinet of Ministers of Ukraine No. 1225 dated 04.08.2000 “On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off, and Use of Military Property in the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html (accessed: 28.07.2020).
6. Resolution of the Cabinet of Ministers of Ukraine No. 759 dated 29.05.1998 (with amendments) “On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html (accessed: 28.07.2020).
7. Law of Ukraine “On Material Liability of Servicemen and Persons Equated to Them for Damage Caused to the State” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. No. 1417-IX dated 27.04.2021. URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed: 08.08.2021).
8. Resolution of the Cabinet of Ministers of Ukraine No. 604 dated 15.07.2020 “On Approval of the List of Armament, Weapons, and Ammunition, the Shortage or Theft of Which is Compensated by the Guilty Parties at a Multiple of Their Cost” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed: 08.08.2021).
9. Order of the Deputy Minister of Defence of Ukraine – Chief of Logistics of the Armed Forces No. 112 dated 12.11.1998 “On Approval of the Guide on the Operation of Military Fuel Depots of the Armed Forces of Ukraine”.
10. Order of the Ministry of Finance of Ukraine No. 572 dated 17.06.2015 “On Approval of Standard Forms for Reflecting the Results of Inventory by Budgetary Institutions”.
11. Order of the Minister of Defence of Ukraine No. 300 dated 16.07.1997 “On Approval of the Regulation on the Military Economy of the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed: 28.07.2020).
12. Order of the Ministry of Defence of Ukraine No. 440 dated 17.08.2017 “On Approval of the Instruction on Accounting of Military Property in the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. Updated: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed: 28.07.2020).

13. Order of the Minister of Defence of Ukraine No. 81 dated 29.03.2021 “On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed: 10.08.2021).
14. Order of the Ministry of Defence of Ukraine No. 590 dated 12.11.2010 “Regulation on the Financial Economy of a Military Unit of the Armed Forces of Ukraine”.
15. Order of the Ministry of Defence of Ukraine No. 905 dated 19.12.2014 “On Approval of the Instruction on the Organisation and Maintenance of Accounting in the Armed Forces of Ukraine”. URL: <https://studfile.net/preview/2265825/> (accessed: 28.07.2020).
16. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 40 dated 31.01.2024 “On Approval of the Instruction on Record-Keeping in the Armed Forces of Ukraine”. URL: https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukrajini/5-1-0-19 (accessed: 15.04.2024).
17. Order of the Ministry of Defence of Ukraine No. 474 dated 28.08.2019 “On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Indicating Document Retention Periods”. URL: https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf (accessed: 10.08.2021).
18. Order of the Ministry of Defence of Ukraine No. 01 dated 06.01.1999 “On Establishing Norms for the Consumption of Fuel, Oils, Lubricants, and Special Fluids During the Operation, Repair, and Preservation of Military Equipment and Armament of the Armed Forces of Ukraine”.
19. Order of the Ministry of Defence of Ukraine No. 513 dated 13.10.2009 “On Approval of Amendments to the Order of the Minister of Defence of Ukraine No. 01 dated 06.01.1999”.
20. Order of the Ministry of Defence of Ukraine No. 686 dated 14.12.2007 “On Approval of the Instruction on the Organisation of Representation of the Interests of the Ministry of Defence of Ukraine, Military Management Bodies, Army Corps, Air Commands, Formations, Military Units, Military Educational Institutions, Establishments, and Organisations of the Armed Forces of Ukraine During Court Proceedings, Conducting Claim-Litigation Work, and Executing Court Decisions”.
21. Order of the Ministry of Defence of Ukraine No. 596 dated 09.11.2016 “On Approval of the Instruction on the Organisation of Transfer of Armament, Military Equipment, and Property for Repair”.
22. Order of the Ministry of Defence of Ukraine No. 374dsk dated 11.06.2014 “On Approval of the List of Support Kits for Standard Technical Means and Property of the Fuel and Lubricants Service for the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime”.
23. Joint Order of the Ministry of Defence of Ukraine and Other Ministries No. 791 dated 17.12.2016 “On Approval of the Procedure for Settlements for Received Fuel and Lubricants and Food Products Between Entities Directly Engaged in Combating Terrorism in the Area of the Anti-Terrorist Operation”.
24. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 60 dated 23.05.2000 “On the Introduction of the Instruction on Conducting Documentary Audits (Inspections) of the Fuel Service of a Military Unit, Depot, Base, and Fuel Support Centre”.
25. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 7 dated 11.04.1994 “On the Introduction of the Instruction on Handling Toxic Technical Fluids”.

26. Order of the Deputy Minister of Defence of Ukraine for Logistics No. 24 dated 02.02.1994 “On the Introduction of the Guide on Handling Ethyl Alcohol”.
27. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 45 dated 30.05.1997 “On the Organisation of Operation and Inspection of the Condition of Technical Means of the Fuel Service of the Armed Forces of Ukraine”.
28. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 46 dated 30.05.1997 “On the Organisation of Mass Fuel Issuance to Automotive Transport”.
29. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 112 dated 12.11.1998 “On Approval of the Guide on the Operation of Military Fuel Depots of the Armed Forces of Ukraine”.
30. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 85 dated 31.08.2020 “On Approval and Introduction of Methodological Recommendations on Determining the Need for Armament, Military Equipment, Material-Technical Resources by Supply Session, Land Plots, and Troop Deployment Required for Preparation and Execution of Tasks to Repel Armed Aggression”.
31. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 dated 30.12.2016 “On Approval of the Instruction on Establishing Service Life Until Repair and Write-Off of Technical Means of the Fuel and Lubricants Service”.
32. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 509 dated 30.12.2016 “Guide on the Organisation of Operation of Fuel Support Centres, Bases, and Depots of the Armed Forces of Ukraine”.
33. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 170 dated 25.04.2018 “On the Procedure for Preparing Operational (Combat) Documents”.
34. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 340 dated 29.08.2016 “On Approval of the Instruction on the Organisation of Internal Control in the Armed Forces of Ukraine”.
35. Order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine No. 55 dated 12.04.2010 “On Approval and Introduction of the Table of Urgent Reports on Operational and Material-Technical Support of Troops (Forces) in Peacetime” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0 (accessed: 28.07.2020).
36. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 dated 01.01.2024 “On Approval of the Regulation on the Provision of Fuel and Lubricants Service Property in the Armed Forces of Ukraine”.
37. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 dated 04.01.2024 “On Approval of the Instruction on the Quality of Fuel, Lubricants, and Special Fluids in the Armed Forces of Ukraine”.
38. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 196 dated 13.07.2023 “On Approval of Norms for the Consumption of Fuel and Lubricants During the Operation of Aviation Equipment in the Armed Forces of Ukraine”.
39. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 222 dated 14.12.2020 “On Approval of Norms for the Consumption of Fuel and Lubricants During the Operation of Ships, Boats (Vessels) of the Naval Forces of the Armed Forces of Ukraine”.
40. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 dated 15.04.2023 “On Establishing Year-Round Use of Low-Freezing Cooling Fluids in Armament and Military Equipment of the Armed Forces of Ukraine”.

41. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 36/ dated 23.01.2024 “On Approval of the Table of Urgent Reports of the Armed Forces of Ukraine”.
42. Guide on the Storage of Technical Means of the Fuel Service. Kyiv: Varta, 2000.
43. Application of Fuel in Military Equipment. Military Publishing, 1994.
44. Fuel Supply for Military Units. Military Publishing.
45. Main Provisions for Providing Military Units with Fuel and Lubricants. Publishing, 2009.
46. Recommendations on Planning Fuel Supply for Military Units and Formations. Military Publishing, 1992.
47. Lecture Course on the Discipline “Organisation of Fuel and Lubricants Supply”. Military Academy, Odesa, 2015.
48. Norms for Equipping with Technical Means of the Fuel Service.
49. Fundamentals of Fuel and Lubricants Production, Part 1. OISV, 2005.
50. Fundamentals of Fuel and Lubricants Production, Part 2. OISV, 2006.
51. Application of Fuel Quality Control. Military Academy (Odesa), 2012.

Titles of topics and distribution of study time by types of academic activities.

№	Types of academic activities, assessment methods	Total hours	Among them:		Types of academic activities, assessment methods
			Classroom hours	Independent work	
Semester 3					
		45	24	21	Section 1. Organisation of Fuel Supply and Structure of the Fuel Service in a Military Unit in Peacetime Safety Measures and Fire Protection
		2	2		Introduction
1	Lecture	2	2		Introduction. 1. Introduction to the specialty of the fuel service chief of a military unit. 2. Purpose, tasks, and brief content of the course.
		31	16	15	Topic 1. Organisation of Fuel Supply and Structure of the Fuel Service in a Military Unit in Peacetime
2	Lecture	4	2		Lesson 1. Tasks and Organisational Structure of the Fuel Service of the Armed Forces of Ukraine 1. The Fuel Service of the Armed Forces of Ukraine, its tasks, and material-technical base. 2. The role, place, and tasks of the fuel service in the overall system of maintaining combat readiness and providing troops with material resources.
				2	1. Normative documents on the fuel and lubricants service. 2. Basic concepts of the fuel service.
3	Group Session	4	2		Lesson 2. General Provisions on the Organisation of Fuel and Technical Means Supply for Troops 1. General provisions. 2. Supply of fuel and technical means for the fuel service.
				2	1. Normative documents on the fuel service.
4	Practical Session	6	2		Lesson 3. Organisational-Staff Structure of the Fuel Service of a Mechanised (Tank) Brigade 1. Purpose, composition, capabilities, and tasks of the fuel service of a mechanised brigade. 2. Rights and duties of officials of the fuel and lubricants service of a military unit.
				4	1. Duties of the fuel service chief of a military unit. 2. Duties of the fuel and lubricants depot chief of a military unit. 3. Duties of the fuel service clerk of a military unit.
5	Lecture	4	2		Lesson 4. Military Fuel Depots and Refuelling Points of a Military Unit and Formation 1. Classification and purpose of military fuel depots. 2. Location, equipment, and operation of stationary and field depots.
				2	1. Duties of the fuel and lubricants depot chief of a military unit. 2. Duties of the fuel service clerk of a military unit.

6	Practical Session	4	2		Lesson 5. Procedure for Storing Fuel and Technical Means at a Military Unit Depot 1. Normative documents on the storage of fuel and technical means in a military unit. 2. Organisation of storage of fuel, toxic technical fluids, and technical means of the fuel service at a military unit depot.
				2	1. Purpose, types, and operation of military fuel depots. 2. Purpose and operation of refuelling points.
7	Practical Session	3	2		Lesson 6. Organisation of the Operation of a Military Equipment Refuelling Point 1. Composition and purpose of the military equipment refuelling point. 2. Organisation of the operation of the military equipment refuelling point.
				1	1. Organisation of the operation of the military equipment refuelling point.
8	Group Session	6	2		Lesson 7. Procedure for Refuelling Equipment in a Military Unit 1. Organisation of equipment refuelling. 2. Procedure for issuing fuel, oils, and toxic technical fluids at the refuelling point.
				4	1. Operation of the refuelling point during vehicle departure from the depot. 2. Refuelling vehicles using automotive refuelling equipment in field conditions.
		10	6	4	Topic 2 Safety Measures and Fire Protection of Fuel Service Facilities
19	Lecture	3	2		Lesson 1 Safety Measures When Handling Fuels and Lubricants 1. General provisions. 2. Safety rules for transporting fuels and lubricants.
				1	1. Safety measures for storing fuels and lubricants.
20	Group Session	3	2		Lesson 3 Safety Measures When Handling Fuels and Lubricants 1. Safety measures for storing fuels and lubricants. 2. Safety measures for handling toxic technical substances and alcohol. 3. Organisation of occupational safety at fuel service facilities.
				1	1. Safety measures for issuing fuels and lubricants.
22	Practical Session	2	2		Lesson 4 Fire Protection of Fuel Service Facilities 1. Basic fire safety rules. 2. Fire extinguishing means and their application.
					SEMESTER 4
		30	22	8	Section 2. Normative Consumption of Fuel, Lubricants, and Special Fluids, and Individual Training of Fuel Service Personnel in a Military Unit
		19	14	5	Topic 3. Normative Consumption of Fuel, Lubricants, and Special Fluids
23	Lecture	3	2		Lesson 1. Purpose and Procedure for Establishing Norms for the Consumption of Fuel, Lubricants, and Special Fluids 1. Purpose and establishment of norms for the consumption of fuel, lubricants, and special fluids. 2. Application of norms for the consumption of fuel, oils, lubricants, and special fluids during the operation, repair, and preservation of military equipment and armament.
				1	1. Establishment of norms for the consumption of fuel, lubricants, and special fluids.

24	Lecture	2	2		Lesson 2. Purpose and Procedure for Applying Special Fluids and Ethyl Alcohol 1. Purpose and procedure for applying special fluids. 2. Purpose and procedure for applying ethyl alcohol.
25	Group Session	3	2		Lesson 3. Methodology for Calculating Fuel Consumption During Operation, Maintenance, and Storage of Armament, Military Equipment, and Technical Means of Logistics Services 1. Methodology for calculating fuel consumption during the operation of armament and equipment. 2. Methodology for calculating fuel consumption during the maintenance and storage of armament, military equipment, and technical means of logistics services.
			1		1. Normative documents on the provision of fuel and technical means of the fuel service in peacetime. 2. Normative documents on establishing service life until repair and write-off of technical means of the fuel and lubricants service.
26	Practical Session	3	2		Lesson 4. Normative Consumption of Fuel, Lubricants, and Special Fluids for Storage, Preservation, and Seasonal Maintenance 1. Normative documents on the normative consumption of fuels and lubricants. 2. Organisation of storage, preservation, and seasonal maintenance. 3. Solving tasks on applying fuel consumption norms during the operation and maintenance of armament and military equipment.
			1		1. Solving tasks on applying fuel consumption norms during the operation of armament and equipment. 2. Solving tasks on applying fuel consumption norms during the maintenance and preservation of armament and equipment.
27	Practical Session	3	2		Lesson 5. Norms for Consumption and Procedure for Applying Special Fluids and Ethyl Alcohol 1. Normative documents on the application and consumption of special fluids and ethyl alcohol. 2. Procedure for the consumption of special fluids and ethyl alcohol. 3. Solving tasks on applying consumption norms for special fluids and ethyl alcohol during the maintenance and preservation of armament and equipment.
			1		1. Procedure for applying surcharges to fuel consumption norms when using automotive equipment. 2. Solving tasks on applying surcharges to fuel consumption norms.
28	Practical Session	3	2		Lesson 6. Application of Fuel, Lubricants, and Special Fluids Consumption Norms During Operation, Maintenance, and Storage of Armament and Military Equipment of Branches of Troops and Logistics of the Armed Forces. 1. Methodology for calculating the consumption of fuels and lubricants during the operation, maintenance, and storage of armament and military equipment of branches of troops and logistics of the Armed Forces. 2. Procedure for preparing waybills, unit worksheets, and writing off fuels and lubricants based on them. 3. Methods for reducing fuel consumption norms.
			1		1. Procedure for issuing fuel, lubricants, and special fluids for storage, preservation, and seasonal maintenance. 2. Procedure for writing off fuel, lubricants, and special fluids for storage, preservation, and seasonal maintenance.
		11	8	3	Topic 4. Organisation of Individual Training of Fuel Service Personnel in a Military Unit According to Standards

29	Lecture	3	2		Lesson 1 Organisation of Individual Training of Fuel Service Personnel in a Military Unit According to Standards. 1. Organisation of individual training for junior specialists of the fuel service in a military unit. 2. Planning individual training for junior specialists of the fuel service in a military unit.
				1	1. Training of junior specialists of the fuel service in a military unit according to standards.
30	Group Session	4	2		Lesson 2. Organisation of Individual Training of Fuel Service Personnel in a Military Unit According to Standards 1. Selection and study of literature for preparing notes for individual training. 2. Methodology for conducting individual training sessions.
				2	1. Requirements for junior specialists of the fuel service. 2. Theoretical and practical components of standard performance..
31	Practical Session	2	2		Lesson 3. Modern System for Training Fuel Service Personnel in a Military Unit According to Standards 1. New system of combat training for military units (subunits). 2. Organisation of individual training in a military unit. 3. Assessment of the level of individual training.
32	Control measures	2	2		DIFFERENTIATED CREDIT
Semester 5					
		45	30	15	Chapter 3. Organisation of Fuel Service Supply for Military Units and Institutions from Various Sources
		45	30	15	Topic 5. Organization of provision of fuel and technical means from various sources, different modes of transport
33	Lecture	3	2		Lesson 1. Types of Fuel Reserves, Maintenance Norms, and Accumulation Procedures 1. Types of reserves, norms, and procedures for maintaining fuel and technical means of the fuel service. 2. Regulatory documents on maintenance and accumulation, and their practical application.
				1	1. Types of reserves, norms, and procedures for maintaining fuel and technical means of the fuel service.
34	Group Session	3	2		Lesson 2. Procedure for Storing Military Reserves 1. Requirements of regulatory documents for storing military reserves. 2. Organisation of military reserve storage. 3. Practical familiarisation and study of military reserve storage conditions.
				1	1. Procedure for consumption and renewal of fuel reserves in a military unit.
35	Practical Session	3	2		Lesson 3. Procedure for Consumption and Renewal of Fuel Reserves in a Military Unit 1. Procedure for consumption and renewal of fuel reserves in a military unit. 2. Documentation of consumption and renewal of military reserves.
				1	1. Documentation of operations for consumption and renewal of fuel and technical means reserves
36	Lecture	2	2		Lesson 4. Supply of Fuel and Technical Means from Various Sources. 1. Organisation and procedure for obtaining fuel and technical means from Armed Forces depots and military units. 2. Obtaining fuel and technical means from entities of the national economy of Ukraine.

37	Practical Session	3	2	<p>Lesson 5. Accounting Operations for Receiving Fuel and Technical Means from Logistics Support Centres and Other Military Units.</p> <ol style="list-style-type: none"> 1. Documentation of receiving fuel and technical means from Logistics Support Centres (LSC). 2. Documentation of receiving fuel and technical means from another military unit. 3. Recording entries in accounting books.
			1	<ol style="list-style-type: none"> 1. Documentation of receiving fuel and technical means from another military unit. 2. Recording entries in accounting books.
38	Lecture	5	2	<p>Lesson 6. Supply of Fuel and Technical Means for the Fuel Service</p> <ol style="list-style-type: none"> 1. Norms for supplying technical means and fuel for the fuel service. 2. Procedure for requesting, obtaining, accounting, and issuing equipment and fuel for operation.
			3	<ol style="list-style-type: none"> 1. Norms for supplying technical means of the fuel service.
39	Group Session	2	2	<p>Lesson 7. Accounting Operations for Receiving Technical Means of the Fuel Service from the Supply Authority and Issuing Them for Operation</p> <ol style="list-style-type: none"> 1. Documentation of receiving technical means of the fuel service from the supply authority. 2. Documentation of issuing technical means of the fuel service to subunits. 3. Recording entries in accounting books.
40	Group Session	5	2	<p>Lesson 8. Final Lesson on the Topic “Organisation of Fuel and Technical Means Supply from Various Sources and Transport Types”.</p>
			3	<ol style="list-style-type: none"> 1. Documentation of issuing technical means of the fuel service to subunits..
41	Practical Session	2	2	<p>Lesson 9 Organisation and Documentation of Operations for Supplying Fuel and Technical Means to Military Units</p> <ol style="list-style-type: none"> 1. Procedure for requesting, obtaining, accounting, and issuing equipment and fuel for operation. 2. Documentation of receiving and issuing technical means of the fuel service.
42	Lecture	2	2	<p>Lesson 10. Receiving Fuel and Technical Means Delivered to a Military Unit by Rail Transport</p> <ol style="list-style-type: none"> 1. Procedure for receiving fuel and technical means delivered to a military unit by rail transport. 2. Documentation of fuel and technical means delivered to a military unit by rail transport.
43	Group Session	2	2	<p>Lesson 11. Documentation of Fuel and Technical Means Delivered to a Military Unit by Rail Transport</p> <ol style="list-style-type: none"> 1. Documentation of fuel and technical means delivered to a military unit by rail transport. 2. Recording entries in the accounting book..
			2	<ol style="list-style-type: none"> 1. Procedure for receiving fuel and technical means delivered to a military unit by rail transport.
44	Practical Session	2	2	<p>Lesson 12. Documentation of Dispatching Fuel and Technical Means by Rail Transport as Directed by the Supply Authority</p> <ol style="list-style-type: none"> 1. Documentation of dispatching fuel and technical means by rail transport. 2. Conducting accounting operations within the service.
45	Practical Session	5	2	<p>Lesson 13. Receipt of Fuel Service Material Resources Delivered to a Military Unit by Rail Transport with Discrepancies from Accompanying Documents.</p> <ol style="list-style-type: none"> 1. Specifics of receiving fuel service material resources delivered to a military unit with discrepancies in quantity. 2. Specifics of receiving fuel service material resources delivered to a military unit with discrepancies in quality.
			3	<ol style="list-style-type: none"> 1. Documentation of fuel service material resources delivered to a military unit with discrepancies in quantity. 2. Documentation of fuel service material resources delivered to a military unit with discrepancies in quality.

46	Practical Session	2	2		Lesson 14. Procedure for Procuring Material Resources Through Tender Procedures. 1. Organisation of preparing tender procurements for the fuel service in a military unit. 2. Conducting tender procurements and recording of material resources.
					Semester 6
		61	48	13	Section 4. Organisation of Accounting for Fuel Service Material Resources in a Military Unit and Documentation
		12	8	4	Topic 6. Organisation of Accounting for Fuel Service Material Resources in a Military Unit.
47	Lecture	3	2		Lesson 1 Organisation of Accounting for Fuel Service Material Resources in a Military Unit 1. Organisation of accounting for fuel service material resources. 2. Procedure for compiling, documenting, and maintaining accounting records.
			1		1. Accounting for fuel service material resources in a military unit. 2. Procedure for compiling, documenting, and maintaining accounting records.
48	Group Session	3	2		Lesson 2. Forms and procedure for the use of accounting documents for the fuel service 1. Types and forms of accounting documents used in the office work of the fuel service. 2. Types and forms of accounting documents used in the Depot of the fuel service. 3. Types and forms of accounting documents used in the fuel service unit.
			1		1. Accounting documents used in fuel service record-keeping of a military unit. 2. Accounting documents used at the fuel service depot of a military unit.
49	Practical Session	3	2		Lesson 3. Maintaining Accounting Books in the Fuel Service of a Military Unit 1. Preparation and registration of accounting books. 2. Transferring property balances to new books. 3. Reconciliation with the financial service of the unit.
			1		1. Change in the technical condition of fuel service technical means. 2. Documentation of changes in the technical condition of fuel service technical means.
50	Practical Session	3	2		Lesson 4. Documentation of Operations Related to Changes in the Technical (Qualitative) Condition of Fuel Service Property 1. Documentation of operations related to changes in the technical condition of fuel service technical means in record-keeping and at the depot. 2. Documentation of operations related to changes in the qualitative condition of fuel service property in record-keeping and at the depot.
			1		1. Procedure for documenting main accounting documents at the fuel depot. 2. Procedure for documenting main accounting documents in the fuel service.
		33	24	9	Topic 7. Documentation of Economic Operations of the Fuel Service in a Military Unit
51	Lecture	2	2		Lesson 1 Documentation for Accounting of Fuel Service Material Resources 1. Procedure for compiling, documenting, and processing documents. 2. Documentation of receipt (arrival) and issuance (release) of military property.
52	Practical Session	3	2		Lesson 2. Comprehensive Task. Task No. 1: Establishing Accounting for the Fuel Service in a Military Unit 1. Studying the comprehensive task. 2. Documenting and recording initial entries in accounting books.
			1		1. Procedure for compiling, documenting, and processing documents.

53	Practical Session	3	2		Lesson 3. Comprehensive Task. Task No. 2: Organisation and Documentation of Receiving Fuel from the Supply Authority and Supplier 1. Documentation of receiving fuel from another unit's depot (supplier). 2. Documentation of receiving fuel from the Logistics Support Centre depot. 3. Documentation of receiving strict accountability forms.
				1	
54	Group Session	2	2		Lesson 4. Final Lesson on the Topic "Organisation of Accounting for Fuel Service Material Resources in a Military Unit".
55	Practical Session	3	2		Lesson 5. Comprehensive Task. Task No. 3: Documentation Operations for Receipt, Storage, and Issuance of Fuel Service Technical Means 1. Main provisions and requirements of regulatory documents for documenting operations of receipt, storage, and issuance of technical means to subunits from the depot. 2. Organisation of documentation for receipt, storage, and issuance of fuel service technical means from the supplier.
				1	
56	Practical Session	3	2		Lesson 6. Comprehensive Task. Task No. 4: Documentation Operations for Accounting and Write-Off of Strict Accountability Forms 1. Documentation operations for accounting and write-off of strict accountability forms after their use. 2. Documentation operations for the write-off of strict accountability forms in case of loss.
				1	
57	Practical Session	3	2		Lesson 7. Comprehensive Task. Task No. 5: Specifics of Documentation for Receipt, Storage, and Issuance of Fuel, Toxic Technical Fluids, and Alcohol 1. Specifics of documenting receipt, storage, and issuance of fuels and lubricants. 2. Specifics of documenting receipt, storage, and issuance of alcohol. 3. Specifics of documenting storage and issuance of toxic technical fluids.
				1	
58	Practical Session	3	2		Lesson 8. Comprehensive Task. Task No. 6: Documentation of Operations for Write-Off of Fuel Service Technical Means and Property 1. Documentation of operations for changes in the qualitative condition of fuel service technical means and property. 2. Documentation of operations for the write-off of fuel service technical means and property.
				1	
59	Practical Session	4	2		Lesson 9. Comprehensive Task. Task No. 7: Documentation Operations for Receipt, Storage, and Issuance of Fuel, Toxic Technical Fluids, and Alcohol 1. Methodology for determining the quantity of petroleum products in storage facilities and their documentation. 2. Organisation of documentation for refuelling equipment at a stationary refuelling point. 3. Organisation of documentation for refuelling equipment during exercises and marches.

				2	1. Compilation of acts for recording balances. 2. Documentation of inventory operations and finalisation of results.
60	Practical Session	3	2		Lesson 18. Comprehensive Task. Task No. 8: Documentation of Inventory of Fuel Service Material Resources 1. Compilation of acts for recording balances. 2. Compilation of calculations for natural losses. 3. Documentation of inventory operations and finalisation of results.
			1		1. Documentation of receipt operations related to the movement of fuels and lubricants and fuel service property in a military unit. 2. Documentation of expenditure operations related to the movement of fuels and lubricants and fuel service property in a military unit.
61	Control measures	2	2		DIFFERENTIATED CREDIT
					Semester 7
		16	16	-	Section 5. Reporting and Control of Economic Activities of the Fuel Service in a Military Unit
		18	18	-	Topic 8. Reporting and Control of Economic Activities of the Fuel Service in a Military Unit
62	Lecture	2	2		Lesson 1. Reporting in the Fuel Service of a Military Unit 1. Reporting, its purpose, and requirements. 2. Characteristics and procedure for compiling reporting documents for the fuel service.
63	Practical Session	2	2		Lesson 2. Composition, Purpose, and Procedure for Compiling Main Reporting Documents for the Fuel Service 1. Initial data, sequence, and work conducted before compiling relevant reports and submissions. 2. Compilation of reports and submissions regarding the availability and movement of fuels and lubricants and technical means for a month, quarter, and year..
64	Lecture	2	2		Lesson 3. Control of Economic Activities of the Fuel Service in a Military Unit 1. Tasks, types, and forms of control of economic activities in a military unit. 2. Procedure for conducting control of economic activities in a military unit.
65	Lecture	2	2		Lesson 4. Work of the Internal Inspection Commission for Checking Economic Activities of the Fuel Service 1. Recording balances in the fuel service. 2. Documentation of balance recording.
66	Group Session	2	2		Lesson 5. Organisation of Internal Control of Economic Activities of the Fuel Service in a Military Unit 1. Standards of internal control. 2. Organisation of internal control in a military unit.
67	Practical Session	4	4		Lesson 6. Documentation of Results of Control of Economic Activities of the Fuel Service 1. Procedure for conducting inventory of fuel service military property and documenting results. 2. Procedure for checking economic activities of the fuel service and documenting results.
68	Lecture	2	2		Lesson 7. Organisation of Economic Work and Methods for Determining Its Effectiveness 1. Planning economic work. 2. Classification and causes of losses and overconsumption of fuel.
69	Group Session	2	2		Lesson 8. Final Lesson on the Topic “Documentation of Economic Operations of the Fuel Service in a Military Unit and Reporting”
					Semester 8

		89	56	33	Section 6. Combat and Mobilisation Readiness of the Fuel Service in a Military Unit, Fuel Supply in Wartime, Planning of Supply, and Receipt and Transfer of Duties and Positions.
		27	14	13	Topic 9. Planning of Fuel and Technical Means Supply for a Military Unit in Peacetime
70	Lecture	3	2		Lesson 1. Planning of Fuel and Technical Means Supply for a Military Unit in Peacetime 1. System and organisation of planning fuel and technical means supply for a military unit in peacetime. 2. Organisation of planning fuel and technical means supply for a military unit in peacetime. 3. Requirements of regulatory documents for organising the planning of fuel and technical means supply for a military unit in peacetime
				1	1. Requirements of regulatory documents for organising the planning of fuel and technical means supply for a military unit in peacetime..
71	Lecture	3	2		Lesson 2. Determining Annual Fuel Needs for a Ground Forces Military Unit 1. Determining annual needs for gasoline and diesel fuel. 2. Determining needs for technical means of the fuel service
				1	1. Determining needs for cooling fluids. 2. Determining needs for brake fluids.
72	Lecture	7	2		Lesson 3. Planning Annual Fuel and Technical Means Needs for a Ground Forces Military Unit 1. Determining annual needs for gasoline and diesel fuel. 2. Determining needs for technical means of the fuel service.
				2	1. Plan for the consumption of allocated limits. 2. Plan for the renewal of long-term storage reserves. 3. Plan for conducting analyses of long-term storage fuel.
			3	1. Fuel supply plan. 2. Technical means supply plan.	
73	Lecture	4	2		Lesson 4. Planning Economic Activities of the Fuel Service in a Military Unit 1. Significance and general procedure for planning in the fuel service. 2. Types of economic plans for the fuel service in a military unit, their forms, content, and compilation procedure. 3. Specifics of planning economic activities in a military unit.
				2	1. Specifics of planning economic activities of the fuel service in a military unit.
74	Group Session	4	2		Lesson 5. Compiling the Annual Economic Plan Section for the Fuel Service in a Military Unit. 1. Compiling a list of fuel service measures for inclusion in the annual economic plan section. 2. Compiling calculations for the annual economic plan section for the fuel service in a military unit..
				2	1. Annual plan for control and audit work of the formation. 2. Annual plan for economic work of the military unit. 3. Plan for supporting specific activities of the military unit..
75	Practical Session	4	2		Lesson 6. Compiling Work Plans for the Fuel Service Chief of a Military Unit. 1. Compiling a list of fuel service measures for inclusion in the monthly work plan. 2. Compiling the work plan for the fuel service chief of a military unit.
				2	1. Compiling the work plan for the fuel service chief of a military unit.
76	Group Session	2	2		Lesson 7. Final Lesson on the Topic “Planning of Fuel and Technical Means Supply for a Military Unit in Peacetime”.
		27	14	13	Topic 10. Combat Readiness and Mobilisation Work in the Fuel Service of a Military Unit.

77	Lecture	2	2		Lesson 1 Combat Readiness of the Fuel Service in a Military Unit 1. Activities of the fuel service chief in maintaining the service's combat readiness. 2. Measures conducted in peacetime by the fuel service to maintain high combat readiness of a military unit.
78	Group Session	2	2		Lesson 2. Mobilisation Work in the Fuel Service of a Military Unit. 1. Tasks of the fuel service in supporting the mobilisation deployment of a military unit. 2. Planning mobilisation work.
				3	Lesson 3. Planning Mobilisation Work in the Fuel Service of a Military Unit. 1. Work of the fuel service chief in organising mobilisation activities. 2. Compilation and documentation of calculations for the mobilisation work plan of the fuel service.
80	Practical Session	2	2		Lesson 4. Supply of Material Resources for the Fuel Service of a Military Unit in Wartime 1. General provisions for supplying fuel service property in wartime. 2. Planning fuel and technical means supply for a military unit in wartime.
81	Practical Session	7	2		Lesson 5. Supply of Material Resources for the Fuel Service of a Military Unit in Various Types of Combat Operations. 1. Supply of material resources for the fuel service of a military unit during preparation and during a march. 2. Supply of material resources for the fuel service of a military unit during offensive and defensive operations
			5		1. Supply of material resources for the fuel service of a military unit during preparation for a march. 2. Development of a fuel supply plan for a military unit during a march. 3. Development of calculations for organising equipment refuelling during a march. 4. Development of proposals and reports for the fuel service.
82	Group Session	2	2		Lesson 6. Material Liability of Servicemen for Damage Caused to the State 1. Material liability of individuals for damage caused to the state. 2. Regulatory and legislative documents on the material liability of servicemen.
83	Practical Session	7	2		Lesson 7 Liability for Damage Caused to the State. Inspection Certificate 1. Types of material liability. 2. Determination of the extent of damage caused. 3. Inspection certificate. Procedure for requesting and issuing an inspection certificate.
			3		1. Material liability of servicemen. 2. Procedure for writing off damage caused.
			2		1. Writing off losses at the expense of guilty parties. 2. Writing off losses based on an inspection certificate.
84	Group Session	2	2		Lesson 8. Final Lesson on the Topic "Combat Readiness and Mobilisation Work in the Fuel Service of a Military Unit. Liability for Damage Caused to the State"
		35	28	7	Topic 11. Control and Audit Work. Receipt and Transfer of Duties and Position of the Fuel Service Chief of a Military Unit or Institution
85	Lecture	2	2		Lesson 1. Organisation of Control and Audit Work in the Fuel Service of a Military Unit. 1. Organisation of control and audit work in the fuel service. 2. Organisation of checking the qualitative and quantitative condition of material resources.

86	Group Session	6	4		Lesson 2. Organisation of the Internal Inspection Commission for Checking Economic Activities of the Fuel Service. 1. Methodology for the work of the internal inspection commission in checking the economic activities of the fuel service. 2. Preparation of documents for recording balances
				2	1. Methodology for the work of the internal inspection commission in checking the economic activities of the fuel service.
87	Practical Session	6	4		Lesson 3. Conducting and Documenting Inventories, Inspections, and Audits. 1. Checking the actual availability and qualitative condition of fuel service property. 2. Documentation of inventories, inspections, and audits.
				2	1. Implementation of recommendations based on the results of inventories, inspections, and audits.
88	Practical Session	7	4		Lesson 4. Organisation and Methodology for Receiving Duties and the Position of the Fuel Service Chief of a Military Unit (Institution) 1. General provisions for receiving and transferring the position of the fuel service chief of a military unit (formation). 2. Organisation and methodology for receiving duties and the position of the fuel service chief.
				3	1. Organisation and methodology for receiving duties and the position of the fuel service chief.
89	Group Session	2	2		Lesson 5. Documentation of Receiving Duties and the Position of the Fuel Service Chief of a Military Unit. 1. Compilation of a schedule for receiving duties and the position of the fuel service chief. 2. Compilation of the act of receiving duties and the position of the fuel service chief and its appendices.
90	Practical Session	4	4		Lesson 6. Procedure for Receiving Duties and Positions by Junior Specialists of the Fuel Service. 1. General provisions for receiving and transferring positions of junior specialists of the fuel service in a military unit. 2. Receipt and transfer of the position of the fuel service depot chief in a military unit (institution). 3. Organisation and methodology for receiving duties and the position of the refuelling point chief of the fuel service in a military unit..
91	Group Session	2	2		Lesson 7 . Final Lesson on the Topic “Reporting and Control of Economic Activities of the Fuel Service in a Military Unit. Economic Work”
92	Consultation	2	2		Lesson 8. Preparation for the Exam.
93	Control measures	4	4		E X A M
Total for Discipline		270	180	90	

Programme of the discipline
MS 03 "Employment of Fuel Service Technical Means"

General Objective of the Educational Program Component:

To provide knowledge to tactical-level officers of the Armed Forces of Ukraine regarding the supply of rocket fuel, fuels, and lubricants to subunits (units, formations) and to develop the ability to:

- Organize the operation of fuel service technical means in peacetime and wartime;
- Manage their receipt, storage, and maintenance in proper technical condition;
- Develop skills in organizing the supply of technical means in peacetime, wartime, and during special periods;
- Build practical skills in clarifying tasks, assessing situations, and making decisions as a fuel service chief regarding the use of technical means in main types of tactical operations;
- Organize and methodically conduct training sessions on special and tactical-special training for junior fuel service specialists in support subunits;
- Foster professional thinking, the ability to independently and creatively address tasks in peacetime and wartime, and the practical application of acquired knowledge.

Learning Outcomes:

Upon completion of the academic discipline, the course participant should:

Know:

- How to organize the operation and technological maintenance of fuel service technical means for current and long-term storage;
- The skills required for a fuel service specialist to use technical means in peacetime and wartime;
- The nomenclature of fuel service technical means;
- The skills to perform technological operations with fuel service technical means.

Be Able to:

- Operate fuel service technical means;
- Develop planning documents for the operation and technical maintenance of fuel service technical means;
- Conduct tactical-drill and tactical training sessions with fuel service subunits, fulfil standards, and use technical means for quality training of personnel.

Organizational and Methodological Guidelines:

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

To achieve the main learning objective, the program includes the following teaching forms:

- Frontal teaching**, where all participants, under the instructor's supervision, perform the same task simultaneously;
- Group teaching**, where participants are divided into groups (sections) based on the unit's staff structure, working in parallel;
- Individual teaching**, where participants perform tasks sequentially, one after another.

Depending on the required level of knowledge or skills, the instructor should use the following methods:

Verbal-visual method: The instructor systematically and sequentially presents the educational material, demonstrating the objects of study to provide learners with new knowledge and form appropriate understanding.

Training (reproductive) method: Performing complex actions according to a predetermined algorithm set by the session leader to develop necessary skills and ensure coherence in military-organizational structures.

Situational-cognitive method: Reviewing and discussing real (or probable) actions, familiarizing with troop (force) management experience in military conflicts, and developing skills in informational-analytical activities.

The above methods provide participants with knowledge, skills, and abilities. However, to develop their creative abilities, the session leader should employ problem-based learning methods:

Problem-based teaching: The session leader poses a problem, solves it, and demonstrates the solution process, revealing their thought process. The direct outcome of problem-based teaching is the participant's assimilation of the method and logic of solving a specific problem, though without the ability to apply it independently yet. This method teaches participants how to search for knowledge and fosters creative thinking skills.

Search (heuristic) method: Aims to gradually guide participants toward independent problem-solving by pre-teaching them to perform individual elements of the solution. Used during group exercises, where the session leader determines the method for finding an optimal solution, but the participant finds the solution independently.

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

Material and Technical Support:

Sessions should be conducted in specialized classrooms equipped with personal computing equipment, with one workstation per two participants, and at the training process support centre training ground. The use of technical teaching aids is mandatory during training sessions.

Informational and Methodological Support:

1. Statute of the Internal Service of the Armed Forces of Ukraine: Law No. 548-XIV of 24.03.1999 // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Updated: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed: 28.07.2020).
2. Resolution of the Cabinet of Ministers of Ukraine No. 686 of 05.08.2020 "On Approval of Norms for Losses of Petroleum Products During Their Receipt, Storage, Release, Transshipment, and Transportation" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 30.08.2020).
3. Resolution of the Cabinet of Ministers of Ukraine No. 1041-012 of 28.07.2006 "On Approval of the Procedure for Creation, Maintenance, and Use of Reserves of Armament, Military Equipment, Ammunition, and Other Material Means in the Armed Forces of Ukraine."
4. Resolution of the Cabinet of Ministers of Ukraine No. 748 of 03.05.2000 "On Approval of the Regulation on the Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 28.07.2020).
5. Resolution of the Cabinet of Ministers of Ukraine No. 1225 of 04.08.2000 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off, and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html (accessed: 28.07.2020).

6. Resolution of the Cabinet of Ministers of Ukraine No. 759 of 29.05.1998 (as amended) “On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html (accessed: 28.07.2020).
7. Law of Ukraine “On Material Liability of Servicemen and Equivalent Persons for Damage Caused to the State” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021. URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed: 08.08.2021).
8. Resolution of the Cabinet of Ministers of Ukraine No. 604 of 15.07.2020 “On Approval of the List of Armament, Weapons, and Ammunition, the Shortage or Theft of Which is Compensated by Guilty Persons at a Multiple of Their Cost” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed: 08.08.2021).
9. Order of the Deputy Minister of Defence of Ukraine – Chief of Logistics of the Armed Forces No. 112 of 12.11.1998 “On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine.”
10. Order of the Ministry of Finance of Ukraine No. 572 of 17.06.2015 “On Approval of Standard Forms for Reflecting Inventory Results by Budget Institutions.”
11. Order of the Minister of Defence of Ukraine No. 300 of 16.07.1997 “On Approval of the Regulation on Military Economy of the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed: 28.07.2020).
12. On Approval of the Instruction on Accounting of Military Property in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine No. 440 of 17.08.2017 // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. Updated: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed: 28.07.2020).
13. Order of the Minister of Defence of Ukraine No. 81 of 29.03.2021 “On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed: 10.08.2021).
14. Order of the Ministry of Defence of Ukraine No. 590 of 12.11.2010 “Regulation on the Financial Economy of a Military Unit of the Armed Forces of Ukraine.”
15. Order of the Ministry of Defence of Ukraine No. 905 of 19.12.2014 “On Approval of the Instruction on the Organization and Maintenance of Accounting in the Armed Forces of Ukraine.” URL: <https://studfile.net/preview/2265825/> (accessed: 28.07.2020).
16. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 40 of 31.01.2024 “On Approval of the Instruction on Record-Keeping in the Armed Forces of Ukraine.” URL: https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukrajini/5-1-0-19 (accessed: 15.04.2024).
17. Order of the Ministry of Defence of Ukraine No. 474 of 28.08.2019 “On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Specifying Document Retention Periods.” URL: https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf (accessed: 10.08.2021).
18. Order of the Ministry of Defence of Ukraine No. 01 of 06.01.1999 “On Establishing Norms for the Consumption of Fuel, Oils, Lubricants, and Special Fluids During the Operation, Repair, and Preservation of Military Equipment and Armament of the Armed Forces of Ukraine.”

19. Order of the Ministry of Defence of Ukraine No. 513 of 13.10.2009 “On Approval of Amendments to the Order of the Minister of Defence of Ukraine No. 01 of 06.01.1999.”
20. Order of the Ministry of Defence of Ukraine No. 686 of 14.12.2007 “On Approval of the Instruction on the Organization of Representation of the Interests of the Ministry of Defence of Ukraine, Military Management Bodies, Army Corps, Air Commands, Formations, Military Units, Military Educational Institutions, and Organizations of the Armed Forces of Ukraine in Courts of General Jurisdiction, Conducting Claim and Lawsuit Work, and Executing Court Decisions.”
21. Order of the Ministry of Defence of Ukraine No. 596 of 09.11.2016 “On Approval of the Instruction on the Organization of Transfer of Armament, Military Equipment, and Property for Repair.”
22. Order of the Ministry of Defence of Ukraine No. 374dsk of 11.06.2014 “On Approval of the List of Supply Kits with Standard Technical Means and Fuel Service Property for the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime.”
23. Joint Order of the Ministry of Defence of Ukraine and Other Ministries No. 791 of 17.12.2016 “On Approval of the Procedure for Settlements for Received Fuels and Lubricants and Food Products Between Entities Directly Engaged in Combating Terrorism in the Area of the Anti-Terrorist Operation.”
24. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 60 of 23.05.2000 “On the Introduction of the Instruction for Conducting Documentary Audits (Inspections) of the Fuel Service of a Military Unit, Depot, Base, and Fuel Supply Centre.”
25. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 7 of 11.04.1994 “On the Introduction of the Instruction on Handling Toxic Technical Fluids.”
26. Order of the Deputy Minister of Defence of Ukraine for Logistics No. 24 of 02.02.1994 “On the Introduction of the Guidelines for Handling Ethyl Alcohol.”
27. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 45 of 30.05.1997 “On the Organization of Operation and Inspection of the Condition of Fuel Service Technical Means of the Armed Forces of Ukraine.”
28. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 46 of 30.05.1997 “On the Organization of Mass Fuel Issuance to Automotive Transport.”
29. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 112 of 12.11.1998 “On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine.”
30. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 85 of 31.08.2020 “On Approval and Implementation of Methodological Recommendations for Determining the Need for Armament and Military Equipment, Material and Technical Means by Supply Classes, Land Plots, and Troop (Force) Quartering Required for Preparation and Execution of Tasks to Repel Armed Aggression.”
31. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30.12.2016 “On Approval of the Instruction on Establishing Service Life Until Repair and Write-Off of Fuel Service Technical Means.”
32. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 509 of 30.12.2016 “Guidelines for the Organization of Work of Fuel Supply Centres, Bases, and Depots of the Armed Forces of Ukraine.”

33. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 170 of 25.04.2018 “On the Procedure for Documenting Operational (Combat) Documents.”
34. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 340 of 29.08.2016 “On Approval of the Instruction on the Organization of Internal Control in the Armed Forces of Ukraine.”
35. Order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine No. 55 of 12.04.2010 “On Approval and Implementation of the Table of Urgent Reports on Operational and Material-Technical Support of Troops (Forces) in Peacetime” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0 (accessed: 28.07.2020).
36. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 of 01.01.2024 “On Approval of the Regulation on the Supply of Fuel Service Property in the Armed Forces of Ukraine.”
37. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 “On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Fluids in the Armed Forces of Ukraine.”
38. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 196 of 13.07.2023 “On Approval of Norms for the Consumption of Fuels and Lubricants During the Operation of Aviation Equipment in the Armed Forces of Ukraine.”
39. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 222 of 14.12.2020 “On Approval of Norms for the Consumption of Fuels and Lubricants During the Operation of Ships, Boats (Vessels) of the Naval Forces in the Armed Forces of Ukraine.”
40. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 of 15.04.2023 “On Establishing Year-Round Use of Low-Freezing Cooling Fluids in Armament and Military Equipment of the Armed Forces of Ukraine.”
41. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 36/ of 23.01.2024 “On Approval of the Table of Urgent Reports of the Armed Forces of Ukraine.”
42. Guidelines for the Storage of Fuel Service Technical Means. Kyiv: “Varta,” 2000.
43. Application of Fuel in Military Equipment. Military Publishing House, 1994.
44. Fuel Supply for Military Units. Military Publishing House.
45. Basic Provisions for Supplying Military Units with Fuels and Lubricants. Phoenix Publishing, 2009.
46. Recommendations for Planning Fuel Supply for Military Units and Formations. Military Publishing House, 1992.
47. Course of Lectures on the Discipline “Organization of Supply with Fuels and Lubricants.” Military Academy, Odesa, 2015.
48. Norms for Equipping with Fuel Service Technical Means.
49. Fundamentals of Fuels and Lubricants Production, Part 1. OISV, 2005.
50. Fundamentals of Fuels and Lubricants Production, Part 2. OISV, 2006.
51. Application of Fuel Quality Control. Military Academy (Odesa), 2012.

Titles of Topics and Distribution of Study Time by Types of Academic Activities

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
		20	16	4	Semester 5
		12	10	2	Section 1. Use of motor pumping units.
		9	8	1	Topic 1. Use of motor pumping units for fuel.
1	Lecture	3	2		Lesson 1. Requirements for motor pumping units for fuel. 1. Requirements for motor pumping units for fuel. 2. Classification of motor pumping units for fuel according to their purpose.
				1	1. Performance characteristics, technological scheme of MNUG-20.
2	Group Session	2	2		Lesson 2. The use of the MNUG-20 motor pump unit in everyday activities. 1. Purpose and principle of operation of MNUG-20 units. 2. Deployment and preparation of MNUG-20 for operation. 3. Control over the work of MNUG-20. 4. Folding and maintenance after work.
3	Practical Session	2	2		Lesson 3. The use of the MNUG-20 motor pump unit in everyday activities. 1. Purpose and principle of operation of MNUG-20 units. 2. Deployment and preparation of MNUG-20 for operation. 3. Control over the work of MNUG-20. 4. Folding and maintenance after work.
4	Practical Session	2	2		Lesson 5. The use of the MNUG-80 motor pump unit in everyday activities. 1. Purpose and principle of operation of MNUG-80 units. 2. Deployment and preparation of MNUG-80 for operation. 3. Control over the operation of MNUG-80. 4. Folding and maintenance after work.
		3	2	1	Topic 2. Employment of motor oil pump units.
5	Lecture	3	2		Lesson 1. Classification of motor pumping units for oils and requirements for their use. 1. Requirements for motor oil pump units. 2. Classification of motor pumping units for oils.
				1	1. Performance characteristics, technological scheme of MNUM-14.
		8	6	2	Section 2. Application of means of quality control of fuels and lubricants
		8	6	2	Topic 3. Means of quality control of fuels and lubricants.
6	Lecture	2	2		Lesson 1. Classification of fuel quality control means 1. Classification and purpose of means of fuel quality control.

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. General structure of means of fuel quality control. 3. General equipment and layout of fuel quality control equipment.
7	Group Session	3	2		Lesson 2. Purpose and equipment of mobile means of fuel quality control 1. Purpose of mobile means of fuel quality control. 2. Equipment of the PLG-3 mobile laboratory. 3. The procedure for the deployment and operation of the PLG-3 laboratory.
				1	1. Classification and purpose of means of fuel quality control. 2. General structure of means of fuel quality control.
8	Practical Session	3	2		Lesson 4. The procedure for deploying the PLG-3 mobile laboratory. 1. Purpose of the PLG-3 mobile laboratory. 2. The procedure for placing PLG-3 on the ground. 3. The procedure for deploying PLG-3.
				1	1. Purpose of means of fuel quality control of the military unit. 2. General equipment of fuel quality control equipment.
		45	30	15	Semester 6
		45	30	15	Section 3. Application of fuel pumping stations
		45	30	15	Topic 4. Fuel pumping stations and their applications.
9	Lecture	2	2		Lesson 1. Classification of technical means of pumping. 1. Requirements for technical means. 2. Layout of fuel pumping stations.
10	Group Session	3	2		Lesson 2. Purpose and equipment of the fuel pumping station UGS-160. 1. Purpose and technical characteristics of UGS-160. 2. Design and principle of operation of components and assemblies.
				1	1. Technological diagram of the pumping station UGS-160
11	Practical Session	2	2		Lesson 3. Design and principle of operation of PSG-160 components and assemblies. 1. General design of the fuel pumping station UGS-160. 2. The main units of the station and the principle of their operation.
				1	1. Purpose and principle of operation of the main components and assemblies of the UGS-160.
12	Practical Session	3	2		Lesson 4. The procedure for preparing the UGS-160 for operation 1. Preparation of the UGS-160 pumping station for operation. 2. Bringing the UGS-160 to the pumping mode.
				1	1. Purpose and principle of operation of the main components and assemblies.

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
13	Practical Session	3	2		Lesson 5. The procedure for using UGS-160. 1. Bringing the UGS-160 to the pumping mode 2. Control over the operation of UGS-160. 3. Folding and maintenance after work.
				1	Maintenance of the UGS-160 during operation. 1. Maintenance of the UGS-160 after operation.
14	Group Session	3	2		Lesson 6. Purpose and equipment of the fuel pumping station UGS-240. 1. Purpose and technical characteristics of UGS-240. 2. Design and principle of operation of UGS units and assemblies.
				1	1. Technological scheme of UGS-240
15	Group Session	4	2		Lesson 7. Design and principle of operation of UGS-240 components and assemblies. 1. General design of the fuel pumping station UGS-240. 2. The main units of the station and the principle of their operation.
				2	1. Design of the fuel pumping station UGS-240.
16	Practical Session	5	2		Lesson 8. The procedure for preparing UGS-240 for operation 1. Preparation of the UGS-240 pumping station for operation. 2. Bringing the UGS-240 to the pumping mode.
				3	1. Technological scheme of UGS-240
17	Practical Session	7	4		Lesson 9. The procedure for using UGS-240. 1. Bringing the UGS-240 to the pumping mode 2. Control over the operation of the UGS-240. 3. Folding and maintenance after work.
				3	1. The procedure for drawing up an act of acceptance of the fuel pumping station.
18	Group Session	6	4		Lesson 10. Features of the use of fuel pumping stations. 1. Features of the use of pumping stations at fuel bases and Depots. 2. Features of the use of fuel pumping stations in field main pipelines.
				2	1. Features of the use of pumping stations at fuel bases and Depots.
36	Group lesson	2	2		Lesson 11. Summing up the topic: "Design, principle of operation and operation of fuel pumping stations. » 1. Tests of theoretical and practical skills on the topic. 2. Summing up.
	Control measures	4	4		Passed
		45	30	15	Semester 7

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
		45	30	15	Chapter 4. Automobile means of refuelling and transportation of fuel
		21	16	5	Topic 5. Technical means of refuelling.
37	Lecture	3	2		Lesson 1. The use of technical means of refuelling. 1. Requirements for technical means of refuelling. 2. Layout of automobile means of refuelling fuel and oils.
				1	1. Layout of automobile means of refuelling fuel and oils.
38	Group Session	2	2		Lesson 2. Purpose, equipment and principle of operation of the ATMZ-5-4320, ATZ-9,3-260 fuel tanker. 1. Technological scheme of fuel and oil refuelling vehicle. 2. Operation of fuel and oil tankers.
				1	1. Technological scheme of fuel and oil refuelling vehicles.
39	Practical Session	3	2		Lesson 3. Application of the ATMZ-5 fuel and oil tanker – 4320. 1. Purpose and principle of operation of ATMZ-5-4320 units. 2. Deployment and preparation for work. 3. Control over work. 4. Folding and maintenance after work.
				1	1. Purpose and principle of operation of ATZ-9,3-260 units.
40	Group Session	2	2		Lesson 4. Application of the ATZ-9,3 – 260 fuel tanker. 1. Purpose and principle of operation of ATZ-9,3-260 units. 2. Deployment and preparation for work. 3. Control over work. 4. Folding and maintenance after work.
41	Lecture	3	2		Lesson 5. Individual and group refuelling vehicles facilities. 1. Purpose, classification of individual and group refuelling vehicles facilities. 2. Layout of components and assemblies of refuelling vehicles facilities.
				1	1. Technological diagram of fuel dispensers.
42	Practical Session	2	2		Lesson 6. Equipment for individual and group refuelling vehicles facilities. 1. Purpose, technical characteristics and equipment of group refuelling vehicle facilities. 2. Equipment and principle of operation of components and assemblies of PZP-14 3. Purpose, technical characteristics of individual refuelling vehicle equipment. 4. Equipment and principle of operation of components and assemblies KR-40.
43	Practical Session	3	2		Lesson 7. Equipment of mobile refuelling vehicles facilities. 1. Purpose, technical characteristics and equipment of filling modules

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
					2. Procedure for transporting filling modules 3. Procedure for deploying and applying the deployed modules
				1	1. Hydraulic diagram of fuel dispensers.
44	Group lesson	2	2		Lesson 8. Summing up the topic: "Layout of automotive means of refuelling vehicle fuel and oil." 1. Tests of theoretical and practical skills on the topic. 2. Summing up
		24	14	10	Topic 6. The use of fuel tanks by trucks.
45	Lecture	2	2		Lesson 1. Fuel tank truck AC-5.5-4320. 1. Purpose, technical characteristics of AC-5,5-4320. 2. The layout of components and assemblies, the principle of their operation.
46	Group Session	3	2		Lesson 2. Application of AC-5.5-4320 tank trucks. 1. Equipment and principle of operation of units and assemblies AC-5,5-4320. 2. Preparation for work, work AC-5,5-4320. 3. Folding and maintenance after operation of AC-5,5-4320.
				1	1. Technological scheme of the AC-5,5-4320 tank truck.
47	Lecture	2	2		Lesson 3. Fuel tank truck AC-10-260, AC-12-63221 1. Purpose, technical characteristics of AC-10-260, AC-12-63221 2. The layout of components and assemblies, the principle of their operation.
				1	1. Technological scheme of the AC-10-260 tank truck.
48	Practical Session	2	2		Lesson 4. Application of the AC-10-260 tank truck. 1. Equipment and principle of operation of units and assemblies of AC-10-260. 2. Preparation for work, work of AC-10-260. 3. Folding and maintenance after operation of AC-10-260.
49	Lecture	4	2		Lesson 5. Basic provisions for the operation of tank trucks. 1. The concept and stages of operation of technical means. 2. Requirements of governing documents for the organization of operation of technical means in peacetime.
				2	1. Requirements of governing documents for the organization of the operation of technical means in peacetime.
50	Lecture	5	2		Lesson 6. Reception of fuel tankers by the military unit. 1. The work of the head of the service regarding the reception of technical means. 2. Registration of admission documents.
				3	1. The procedure for receiving technical means in a military unit. 2. Stages of operation of technical means of fuel service.

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
51	Practical Session	5	2		Lesson 7. Reception of technical means of service. 1. Drawing up an act of acceptance. 2. Accounting of technical means for current support. 3. Accounting of technical means in long-term storage. 4. Transfer of technical means to the units of the military unit.
				3	1. Drawing up an act of acceptance. 2. Transfer of technical means to the units of the military unit.
Semester 8					
		40	24	16	Chapter 5. Means of repair of technical means of fuel service
		40	24	16	Topic 7. Means of repair of technical means of fuel service.
52	Lecture	8	2		Lesson 1. Mobile means of repair of technical means of fuel service. 1. Purpose and requirements for mobile repair devices. 2. Depart and equipment of the field repair shop PRM-SG 3. Requirements for the terrain and the procedure for deploying a field repair shop.
				6	1. Depart and equipment of the field repair workshop PRM-SG 2. Requirements for the terrain and the procedure for deploying a field repair shop.
53	Group Session	6	4		Lesson 2. Procedure for deploying the PRM-SG field repair shop 1. Depart and equipment of the field repair workshop PRM-SG 2. Requirements for the area on which it is planned to deploy a field workshop 3. The procedure for deploying a field repair shop.
				2	1. Depart and equipment of the field repair workshop PRM-SG 2. The procedure for deploying a field repair shop.
54	Practical Session	6	4		Lesson 3. The procedure for the work of the field repair shop PRM-SG 1. Depart and equipment of the field repair workshop PRM-SG 2. Requirements for the area on which it is planned to deploy a field workshop 3. The procedure for deploying a field repair shop.
				2	1. Depart of the field repair workshop PRM-SG 2. Requirements for the area of deployment of the field repair shop.
55	Group Session	4	4		Lesson 4. Organization of the work of the field repair workshop PRM-SG 1. Depart and equipment of the field repair workshop PRM-SG 2. The procedure for organizing the deployment of a field workshop.

№	Types of Academic Activities, Assessment Methods	Total Hours	Among them		Topic Title and Learning Questions
			Classroom hours	Independent work	
1	2	3	4	5	6
57	Practical Session	4	2		Lesson 5. The procedure for replacing the filter elements of fuel tankers and field filling stations. 1. Determination of the need to replace filter elements. 2. Replacement of filters on technical means.
				2	1. Equipment of the field repair workshop PRM-SG 2. Component equipment of the field repair shop.
58	Practical Session	2	2		Lesson 6. The procedure for the work of the field repair shop PRM-SG 1. The procedure for deploying a field repair shop. 2. Procedure for receiving and troubleshooting technical means of fuel service
59	Group lesson	6	2		Lesson 7. Summing up the results on the topic: "Means of repair of technical means of fuel service." 1. Tests of theoretical and practical skills on the topic. 2. Summing up
				4	1. Preparation for the exam in the discipline "Application of technical means of fuel service".
76	Control measures	4	4		E X A M
Total per discipline		150	100	50	

Programme of the discipline

MS 04 "Supply of Fuels and Lubricants to Air Forces and Naval Forces Units"

General Objective of the Educational Program Component:

To provide knowledge for the training of a tactical-level officer capable of planning and organizing the supply of fuels, lubricants, technical means, and property for the fuel service of a military unit in peacetime and wartime within the Air Forces and Naval Forces. The officer should be able to organize and maintain fuel service records, as well as document the movement and write-off of fuel and property.

Learning Outcomes:

Upon completion of the academic discipline, the course participant should:

Know:

- How to understand, analyse, and assess the fuel service situation in daily activities and various types of combat operations of Air Forces and Naval Forces units;
- The procedures and norms for supplying military units with fuels, lubricants, and fuel service technical means in peacetime and wartime;
- How to use modern information technologies for planning, accounting, and reporting in the fuel service;
- Effective methods for utilizing fuel service forces and means;
- The organization and methodology for conducting tactical training sessions.

Be Able to:

- Organize the receipt, storage, acquisition, issuance, and accounting of fuel service material means, as well as refuelling armament and military equipment in stationary and field conditions;
- Perform technological operations with fuel service technical means;
- Fulfil fuel service management functions in a military unit during peacetime, wartime, and special periods;
- Work in coordination with chiefs of other branches and services of the military unit while performing fuel service tasks;
- Develop planning, directive, reporting, and other fuel service documents for the military unit;
- Conduct training sessions with fuel service specialists for individual training, meet standards, and utilize training facilities and technical means for quality personnel training.

Organizational and Methodological Guidelines:

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

To achieve the main learning objective, the program includes the following teaching forms:

- Frontal teaching**, where all participants, under the instructor's supervision, perform the same task simultaneously;
- Group teaching**, where participants are divided into groups (sections) based on the unit's staff structure, working in parallel;
- Individual teaching**, where participants perform tasks sequentially, one after another.

Depending on the required level of knowledge or skills, the instructor should use the following methods:

Verbal-visual method: The instructor systematically and sequentially presents the educational material, demonstrating the objects of study to provide learners with new knowledge and form appropriate understanding.

Training (reproductive) method: Performing complex actions according to a predetermined algorithm set by the session leader to develop necessary skills and ensure coherence in military-organizational structures.

Situational-cognitive method: Reviewing and discussing real (or probable) actions, familiarizing with troop (force) management experience in military conflicts, and developing skills in informational-analytical activities.

The above methods provide participants with knowledge, skills, and abilities. However, to develop their creative abilities, the session leader should employ problem-based learning methods:

Problem-based teaching: The session leader poses a problem, solves it, and demonstrates the solution process, revealing their thought process. The direct outcome of problem-based teaching is the participant's assimilation of the method and logic of solving a specific problem, though without the ability to apply it independently yet. This method teaches participants how to search for knowledge and fosters creative thinking skills.

Search (heuristic) method: Aims to gradually guide participants toward independent problem-solving by pre-teaching them to perform individual elements of the solution. Used during group exercises, where the session leader determines the method for finding an optimal solution, but the participant finds the solution independently.

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

Material and Technical Support:

Sessions should be conducted in specialized classrooms equipped with personal computing equipment, with one workstation per two participants, and at the training process support centre's training ground. The use of technical teaching aids is mandatory during training sessions.

Informational and Methodological Support:

1. Statute of the Internal Service of the Armed Forces of Ukraine: Law No. 548-XIV of 24.03.1999 // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. Updated: 03.07.2020. URL: <https://zakon.rada.gov.ua/laws/show/548-14#Text> (accessed: 28.07.2020).
2. Resolution of the Cabinet of Ministers of Ukraine No. 686 of 05.08.2020 "On Approval of Norms for Losses of Petroleum Products During Their Receipt, Storage, Release, Transshipment, and Transportation" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 30.08.2020).
3. Resolution of the Cabinet of Ministers of Ukraine No. 1041-012 of 28.07.2006 "On Approval of the Procedure for Creation, Maintenance, and Use Reserves of Armament, Military Equipment, Ammunition, and Other Material Means in the Armed Forces of Ukraine."
4. Resolution of the Cabinet of Ministers of Ukraine No. 748 of 03.05.2000 "On Approval of the Regulation on the Inventory of Military Property in the Armed Forces" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/748-2000-п#Text> (accessed: 28.07.2020).
5. Resolution of the Cabinet of Ministers of Ukraine No. 1225 of 04.08.2000 "On Approval of the Regulation on the Procedure for Accounting, Storage, Write-Off, and Use of Military Property in the Armed Forces of Ukraine" // Database "Legislation of Ukraine" / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP001225.html (accessed: 28.07.2020).

6. Resolution of the Cabinet of Ministers of Ukraine No. 759 of 29.05.1998 (as amended) “On Approval of the Methodology for Determining the Residual Value of Property of the Armed Forces of Ukraine and Other Military Formations” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://search.ligazakon.ua/l_doc2.nsf/link1/KP980759.html (accessed: 28.07.2020).
7. Law of Ukraine “On Material Liability of Servicemen and Equivalent Persons for Damage Caused to the State” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. No. 1417-IX of 27.04.2021. URL: <https://zakon.rada.gov.ua/laws/show/160-20#Text> (accessed: 08.08.2021).
8. Resolution of the Cabinet of Ministers of Ukraine No. 604 of 15.07.2020 “On Approval of the List of Armament, Weapons, and Ammunition, the Shortage or Theft of Which is Compensated by Guilty Persons at a Multiple of Their Cost” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/604-2020-%D0%BF#n9> (accessed: 08.08.2021).
9. Order of the Deputy Minister of Defence of Ukraine – Chief of Logistics of the Armed Forces No. 112 of 12.11.1998 “On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine.”
10. Order of the Ministry of Finance of Ukraine No. 572 of 17.06.2015 “On Approval of Standard Forms for Reflecting Inventory Results by Budget Institutions.”
11. Order of the Minister of Defence of Ukraine No. 300 of 16.07.1997 “On Approval of the Regulation on Military Economy of the Armed Forces of Ukraine” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0615-97#Text> (accessed: 28.07.2020).
12. On Approval of the Instruction on Accounting of Military Property in the Armed Forces of Ukraine: Order of the Ministry of Defence of Ukraine No. 440 of 17.08.2017 // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. Updated: 23.08.2019. URL: <https://zakon.rada.gov.ua/laws/show/z1192-17#Text> (accessed: 28.07.2020).
13. Order of the Minister of Defence of Ukraine No. 81 of 29.03.2021 “On Approval of the Procedure for Writing Off Military Property in the Armed Forces of Ukraine and the State Special Transport Service” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: <https://zakon.rada.gov.ua/laws/show/z0655-21#Text> (accessed: 10.08.2021).
14. Order of the Ministry of Defence of Ukraine No. 590 of 12.11.2010 “Regulation on the Financial Economy of a Military Unit of the Armed Forces of Ukraine.”
15. Order of the Ministry of Defence of Ukraine No. 905 of 19.12.2014 “On Approval of the Instruction on the Organization and Maintenance of Accounting in the Armed Forces of Ukraine.” URL: <https://studfile.net/preview/2265825/> (accessed: 28.07.2020).
16. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 40 of 31.01.2024 “On Approval of the Instruction on Record-Keeping in the Armed Forces of Ukraine.” URL: https://zsu.at.ua/load/akti_ngsh_zsu/nakaz_ngsh_zsu_vid_07_04_2024_40_pro_zatverdzhennja_instrukciji_z_dilovodstva_v_zbrojnikh_silakh_ukraji_ni/5-1-0-19 (accessed: 15.04.2024).
17. Order of the Ministry of Defence of Ukraine No. 474 of 28.08.2019 “On Approval of the Procedure for Using the List of Documents Generated in the Activities of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine, Specifying Document Retention Periods.” URL: https://www.mil.gov.ua/content/mou_orders/_mou_474.pdf (accessed: 10.08.2021).
18. Order of the Ministry of Defence of Ukraine No. 01 of 06.01.1999 “On Establishing Norms for the Consumption of Fuel, Oils, Lubricants, and Special Fluids During the Operation, Repair, and Preservation of Military Equipment and Armament of the Armed Forces of Ukraine.”

19. Order of the Ministry of Defence of Ukraine No. 513 of 13.10.2009 “On Approval of Amendments to the Order of the Minister of Defence of Ukraine No. 01 of 06.01.1999.”
20. Order of the Ministry of Defence of Ukraine No. 686 of 14.12.2007 “On Approval of the Instruction on the Organization of Representation of the Interests of the Ministry of Defence of Ukraine, Military Management Bodies, Army Corps, Air Commands, Formations, Military Units, Military Educational Institutions, and Organizations of the Armed Forces of Ukraine in Courts of General Jurisdiction, Conducting Claim and Lawsuit Work, and Executing Court Decisions.”
21. Order of the Ministry of Defence of Ukraine No. 596 of 09.11.2016 “On Approval of the Instruction on the Organization of Transfer of Armament, Military Equipment, and Property for Repair.”
22. Order of the Ministry of Defence of Ukraine No. 374dsk of 11.06.2014 “On Approval of the List of Supply Kits with Standard Technical Means and Fuel Service Property for the Staffs of Military Units of the Armed Forces of Ukraine in Peacetime and Wartime.”
23. Joint Order of the Ministry of Defence of Ukraine and Other Ministries No. 791 of 17.12.2016 “On Approval of the Procedure for Settlements for Received Fuels and Lubricants and Food Products Between Entities Directly Engaged in Combating Terrorism in the Area of the Anti-Terrorist Operation.”
24. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 60 of 23.05.2000 “On the Introduction of the Instruction for Conducting Documentary Audits (Inspections) of the Fuel Service of a Military Unit, Depot, Base, and Fuel Supply Centre.”
25. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 7 of 11.04.1994 “On the Introduction of the Instruction on Handling Toxic Technical Fluids.”
26. Order of the Deputy Minister of Defence of Ukraine for Logistics No. 24 of 02.02.1994 “On the Introduction of the Guidelines for Handling Ethyl Alcohol.”
27. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 45 of 30.05.1997 “On the Organization of Operation and Inspection of the Condition of Fuel Service Technical Means of the Armed Forces of Ukraine.”
28. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 46 of 30.05.1997 “On the Organization of Mass Fuel Issuance to Automotive Transport.”
29. Order of the Deputy Minister of Defence of Ukraine for Logistics – Chief of Logistics of the Armed Forces No. 112 of 12.11.1998 “On Approval of the Guidelines for the Operation of Military Fuel Depots of the Armed Forces of Ukraine.”
30. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 85 of 31.08.2020 “On Approval and Implementation of Methodological Recommendations for Determining the Need for Armament and Military Equipment, Material and Technical Means by Supply Classes, Land Plots, and Troop (Force) Quartering Required for Preparation and Execution of Tasks to Repel Armed Aggression.”
31. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 508 of 30.12.2016 “On Approval of the Instruction on Establishing Service Life Until Repair and Write-Off of Fuel Service Technical Means.”
32. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 509 of 30.12.2016 “Guidelines for the Organization of Work of Fuel Supply Centres, Bases, and Depots of the Armed Forces of Ukraine.”
33. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 170 of 25.04.2018 “On the Procedure for Documenting Operational (Combat) Documents.”

34. Order of the Chief of the General Staff of the Armed Forces of Ukraine No. 340 of 29.08.2016 “On Approval of the Instruction on the Organization of Internal Control in the Armed Forces of Ukraine.”
35. Order of the Chief of the General Staff – Commander-in-Chief of the Armed Forces of Ukraine No. 55 of 12.04.2010 “On Approval and Implementation of the Table of Urgent Reports on Operational and Material-Technical Support of Troops (Forces) in Peacetime” // Database “Legislation of Ukraine” / Verkhovna Rada of Ukraine. URL: http://catalog.nuou.org.ua/index.php?option=com_sobipro&pid=128&sid=315183:book-81271&Itemid=0 (accessed: 28.07.2020).
36. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 1 of 01.01.2024 “On Approval of the Regulation on the Supply of Fuel Service Property in the Armed Forces of Ukraine.”
37. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 7 of 04.01.2024 “On Approval of the Instruction on the Quality of Fuels and Lubricants and Special Fluids in the Armed Forces of Ukraine.”
38. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 196 of 13.07.2023 “On Approval of Norms for the Consumption of Fuels and Lubricants During the Operation of Aviation Equipment in the Armed Forces of Ukraine.”
39. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 222 of 14.12.2020 “On Approval of Norms for the Consumption of Fuels and Lubricants During the Operation of Ships, Boats (Vessels) of the Naval Forces in the Armed Forces of Ukraine.”
40. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 99 of 15.04.2023 “On Establishing Year-Round Use of Low-Freezing Cooling Fluids in Armament and Military Equipment of the Armed Forces of Ukraine.”
41. Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 36/dsk of 23.01.2024 “On Approval of the Table of Urgent Reports of the Armed Forces of Ukraine.”
42. Guidelines for the Storage of Fuel Service Technical Means. Kyiv: “Varta,” 2000.
43. Application of Fuel in Military Equipment. Military Publishing House, 1994.
44. Fuel Supply for Military Units. Military Publishing House.
45. Basic Provisions for Supplying Military Units with Fuels and Lubricants. Phoenix Publishing, 2009.
46. Recommendations for Planning Fuel Supply for Military Units and Formations. Military Publishing House, 1992.
47. Course of Lectures on the Discipline “Organization of Supply with Fuels and Lubricants.” Military Academy, Odesa, 2015.
48. Norms for Equipping with Fuel Service Technical Means.
49. Fundamentals of Fuels and Lubricants Production, Part 1. OISV, 2005.

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

№	Types of academic activities, assessment methods	Total Hours	Among them		Types of academic activities, assessment methods
			Training sessions	Independent work	
1	2	3	4	5	6
		90	60	30	Section 1. Supply of Fuels and Lubricants in the Air Forces and Naval Forces
		18	12	6	Topic 1. Organization of Fuel and Lubricant Supply and Fuel Service Technical Means in the Air Forces and Naval Forces
1	Lecture	4	2		Lesson 1. Organization of Fuel Service Supply in the Air Forces and Naval Forces. 1. Organization of fuel and lubricant supply and technical means for the Air Forces fuel service. 2. Organization of fuel and lubricant supply and technical means for the Naval Forces fuel service.
				2	1. Organizational structure of the fuel service in the Air Forces. 2. Organizational structure of the fuel service in the Naval Forces.
2	Group Session	6	4		Lesson 2. Planning the Supply of Fuels, Lubricants, and Fuel Service Technical Means in the Air Forces and Naval Forces 1. Determining the annual fuel requirements for an Air Forces military unit. 2. Determining the annual fuel requirements for a Naval Forces military unit.
				2	1. Determining the refuelling mass for an Air Forces military unit. 2. Determining the refuelling mass for a Naval Forces military unit.
3	Practical Session	6	4		Lesson 3. Specifics of Fuel Accounting and Write-Off in the Air Forces and Naval Forces. 1. Specifics of fuel accounting and write-off in the Air Forces. 2. Specifics of fuel accounting and write-off in the Naval Forces.
				2	1. Procedure for refuelling and write-off of fuel in the Air Forces. 2. Procedure for refuelling and write-off of fuel in the Naval Forces..
4	Practical Session	4	4		Lesson 4. Fuel Consumption Standardization During Operation 1. Fuel consumption standardization for ship operations. 2. Fuel consumption standardization for aircraft operations.
		39	30	9	Topic 2. Application and Quality Control of Fuels and Lubricants in the Air Forces
5	Lecture	5	2		Lesson 1. Specifics of Gas Turbine Engine Operation and Requirements for Jet Fuel Quality. 1. Specifics of jet and turbofan engine operations. 2. Specifics of jet fuel application at different flight altitudes and aircraft engine loads.
				3	1. Key quality indicators of jet fuels.
6	Group Session	2	2		Lesson 3. Specifics of Aviation Fuel Application. 1. Compatibility of civilian and military aviation fuels.

№	Types of academic activities, assessment methods	Total Hours	Among them		Types of academic activities, assessment methods
			Training sessions	Independent work	
1	2	3	4	5	6
					2. Procedure for the interchangeability of aviation fuels.
7	Practical Session	5	2		Lesson 4. Aviation Fuels Used by NATO Countries 1. Classification of NATO aviation fuels and their requirements. 2. Specifics of quality control for aviation fuel application.
				3	1 Grades, composition, and application of jet fuels for subsonic aviation.
8	Laboratory Session	6	6		Lesson 5. Determination of Quality and Quantity of Anti-Icing Fluid in Aviation Fuel 1. Determination of anti-icing fluid quality. 2. Determination of anti-icing fluid quantity.
9	Practical Session	5	2		Lesson 6. Features of aircraft lubrication systems. 1. Aircraft engine lubrication system. 2. Aircraft hydraulic systems.
				3	1. Requirements for jet fuel quality.
10	Group Session	2	2		Lesson 7. Oils and Lubricants Used in Aviation. 1. Engine oils. 2. Transmission oils. 3. Oil mixtures.
11	Laboratory Session	6	6		Lesson 8. Determination of Quality Indicators for Aviation Oils and Oil Mixtures 1. Determination of engine oil quality. 2. Determination of hydraulic oil quality.
12	Practical Session	2	2		Lesson 9. Special Fluids Used in Aircraft. 1. Anti-icing fluids. 2. Hydraulic fluids.
13	Practical Session	2	2		Lesson 10. Organization of Quality Control at Airfield Fuel Depots. 1. Organization of quality control during fuel receipt at the depot. 2. Organization of quality control during fuel issuance before flights.
14	Group Session	2	2		Lesson 11. Organization of Quality Control During Training and Combat Flights 1. Fuel quality control during training flights. 2. Specifics of fuel quality control during combat flights.
15	Practical	2	2		Lesson 12. Final Session on the Topic "Application and Quality Control of Fuels and Lubricants in the Air Forces"

№	Types of academic activities, assessment methods	Total Hours	Among them		Types of academic activities, assessment methods
			Training sessions	Independent work	
1	2	3	4	5	6
	Session				
		19	10	9	Topic 3. Application of Fuel Service Technical Means in the Air Forces and Naval Forces.
16	Lecture	2	2		Lesson 1. Fuel Service Technical Means of Aviation-Technical Units 1. Specifics of the structure and use of fuel service technical means in aviation units. 2. Key differences in the structure of fuel service technical means in aviation units.
17	Self Work	3		3	Lesson 2. Structure of Fuel Service Technical Means in the Air Forces. 1. General structure of Air Forces fuel service technical means. 2. Specifics of the structure and use of technical means in aviation units.
18	Group Session	7	4		Lesson 3. Automotive Refuelling and Fuel Transportation Means in Aviation-Technical Units of the Air Forces 1. Main requirements for automotive fuel and lubricant refuelling vehicles in aviation units. 2. Structure and technical specifications of automotive fuel and lubricant refuelling vehicles in aviation units.
				3	1. Purpose and application of fuel tankers in aviation units. 2. General structure of fuel tankers for aircraft refuelling.
19	Practical Session	7	4		Lesson 5. Application of Fuel Tankers TZA-7.5-5334 and MZ-66. 1. Purpose and structure of TZA-7.5-5334 and MZ-66. 2. Preparation for the use of TZA-7.5-5334 and MZ-66. 3. Bringing TZA-7.5-5334 and MZ-66 to operational mode and monitoring their operation. 4. Disassembly and maintenance after operation.
				3	1. Purpose and application of water-alcohol refuelling vehicles in aircraft. 2. Purpose and application of special fluid refuelling vehicles in aircraft.
		12	6	6	Topic 4. Specifics of Organizing the Operation of Aviation and Naval Fuel Depots of the Armed Forces of Ukraine.
20	Lecture	5	2		Lesson 1. Specifics of Organizing the Operation of Aviation Fuel Depots. 1. Specifics of the general structure of airfield fuel depots. 2. Specifics of receiving, storing, and issuing aviation kerosene at aviation fuel depots
				3	1. Purpose of fuel depots. 2. General structure of depot territory and purpose of depot facilities.
21	Practical Session	5	2		Lesson 2. Organization of Delivery of Material and Technical Means to Aviation Fuel Depots. 1. Procedure for preparing and receiving material means at aviation fuel depots. 2. Specifics of organizing the refuelling of aviation and ground equipment at aviation fuel depots. 3. Organization of storage of toxic technical fluids and special fluids at aviation fuel depots.

№	Types of academic activities, assessment methods	Total Hours	Among them		Types of academic activities, assessment methods
			Training sessions	Independent work	
1	2	3	4	5	6
				3	1. Specifics of receiving and issuing fuel to bulk transport. 2. Specifics of organizing the refuelling of naval (river) vessels.
22	Control measures	4	4		E X A M
Total per discipline		90	60	30	