

STATE BORDER GUARD SERVICE OF UKRAINE
Bohdan Khmelnytskyi National Academy of
the State Border Guard Service of Ukraine

APPROVED

**Rector of the National Academy of the State
Border Guard Service of Ukraine
Major General**

_____ **O. Shynkaruk**
“ ___ ” _____ **20** ___

EDUCATIONAL PROGRAM

the second (master's) level of higher education

Specialty 274 «Automobile Transport»

Branch of knowledge 27 «Transport»

Qualification: «Master of automobile transport»

Professional qualification: “Officer of operational and tactical level”

PASSED BY

the Academic Council of the Academy

(Protocol No ___ of “ ___ ” _____ 201__)

Khmelnytskyi 2018

PREFACE

Developed by the working group consisting of:

1. *Ostashevskiy Serhii Anatoliiovych* - Doctor of Technical Sciences, Associate Professor, Colonel, Head of the Department of Vehicles and Special Equipment of the National Academy of the State Border Guard Service of Ukraine named after B. Khmelnytsky (head of the project team - guarantor of the educational program).
2. *Chmyr Viktor Mykolaiovych* - Candidate of Technical Sciences, Associate Professor, Associate Professor of the Department of Vehicles and Special Equipment of the National Academy of the State Border Guard Service of Ukraine named after B. Khmelnytsky (member of the project team).
3. *Holovnia Serhii Borysovych* - Candidate of Technical Sciences, Associate Professor, Associate Professor of the Department of Vehicles and Special Equipment of the National Academy of the State Border Guard Service of Ukraine named after B. Khmelnytsky (member of the project team).

Reviews of external stakeholders are provided by:

1. *Sakhno Volodymyr Prokhorovych* - Head of the Automobile Department of the National Transport University, Academician of the Transport Academy of Sciences of Ukraine, Excellence in Education of Ukraine, Honored Worker of Transport of Ukraine, Honored Worker of Education of Ukraine, Doctor of Technical Sciences, Professor.
2. *Lobashov Oleksii Olehovych* – Head of the Transport Systems and Logistics Department, Kharkiv National University of Urban Economics named after O. M. Beketov , Doctor of Technical Sciences, Professor.

**Profile of
the educational program in the specialty of
274 «Automobile Transport»**

1. General information	
Full name of higher educational institution and structural unit	Bohdan Khmelnytskyi National Academy of the State Border Guard Service of Ukraine. The Department of Vehicles and Special Equipment
Degree of higher education and the name of the qualification in the language of original	Master of automobile transport. Officer of operational and tactical level.
Official name of the program	Automobile Transport.
Type of diploma and program volume	Single, 90 ECTS credits, 1 year 6 months of study.
Accreditation available	Ministry of Education and Science of Ukraine. 10 years
Cycle/Level	National Qualifications Framework of Ukraine – level 8, FQ-EHEA – cycle 2, EQF-LLL – level 7
Preconditions	I (bachelor's) level of higher education..
Language (-s) of teaching	Ukrainian
Validity of the educational program	2021
Internet address of permanent location for the description of the educational program	http://www.nadpsu.edu.ua
2. The purpose of the educational program	
To provide education in the field of 27 "Transport" in specialty 274 "Automobile Transport", which provides employment in the State Border Guard Service of Ukraine. Training of officers at the operational and tactical level who are competent in the management of the border guard units and are personally responsible for their actions and capable of further training with a high level of autonomy.	
3. Characteristics of the educational program	
Subject area (branch of knowledge, specialty, specialization)	Branch of knowledge - 27 « Transport». Specialty - 274 « Automobile Transport».
Orientation of the educational program	The educational program has an applied orientation with a professional emphasis on the development of competencies necessary for solving the actual problems of ensuring the state border security at the operational and tactical level.
The main focus of the educational program and specialization	Special education in the field of knowledge 27 Transport in specialty 274 "Automobile Transport". Key words (for the specialty unit): automobile transport, special technology, reliability, theory and practice of scientific research, operational properties, economics of operation, automotive engineering, wheel driving, professional activity, engineering problems, technological processes of automobile transport, technical systems of the automobile transport objects.

	Key words (for the military and border guard unit): operative-service activity, the State Border guard body, fire and physical training, communication organization, information and analytical support of operative-service activities, day-to-day management of the State Border guard body activity, headquarters service, units and large units of combined arms.
Particularities of the program	Characterized by the degree of ability and readiness of a specialist in automobile transport to constant self-improvement, the application of the evolved knowledge, abilities, skills, personal qualities and value orientations in the performance of service (combat) functions in peace and war time in the assigned positions. Requires military training (training practice) in the State Border guard bodies .
4. Employability of graduates and adaptivity for further education	
Employability of graduates	Position of the officers of the State Border Guard Service of Ukraine (other military formations formed in accordance with the laws of Ukraine): The Chief of the Engineering and Technical Department of the State Border guard body, the Deputy Chief of the Arms and Technical Equipment Unit, the Senior Officer of the Arms and Technical Equipment Unite of the Regional Directorate, Deputy Chief of the Regional Directorate of the Arms and Technical Equipment Unit, the Officer of the Automobile and Armoured Maintenance Department of the Arms and Technical Equipment Unit of the State Border guard Service of Ukraine, the Head of the Automobile and Armoured Maintenance Department of the Arms and Technical Equipment Unit of the State Border guard Service of Ukraine, the Deputy Director of the Department-the Head of the Arms and Technical Equipment Unite of Administration of the State Border guard Service of Ukraine, in accordance with the order of Administration of the State Border guard Service of Ukraine, 28.09.2012, the number 770.
Further training	Further training at the third (educational-scientific) level of higher education and training with a professional qualification officer of the operational-strategic level.
5. Teaching and assessment	
Teaching and training	Problem-based and context training. Activity and competency-oriented technologies. Practical execution of combat training missions, practical in-service training and daily activities.
Assessment	Forms of control: oral and written questioning, tests (including computer testing), results presentation of practical in-service training (practice), reports for individual tasks, modular tests, credits, differentiated credits, examinations, certification (qualification work defence). Assessment of educational achievements is carried out as: - current control – according to the four-point scale ("excellent", "good", "satisfactory", "unsatisfactory"), verbal scale ("credited", "not credited"); - the final control – according to the four-point scale ("excellent", "good", "satisfactory", "unsatisfactory"), ECTS scale ("A", "B", "C", "D", "E", "FX", "F"); 100-point scale; verbal scale

	("credited", "not credited").
6. Program competencies	
6.1. Integral competence	
IC 01	Ability to solve complex problems and problems in the field of military administration or in the process of study that involves research and/or innovations and is characterized by complexity and uncertainty of conditions.
6.2. General competencies	
GC 01	Ability to conduct research at the appropriate level.
GC 02	Ability to search, process and analyse information from various sources with the help of modern information and communication technologies.
GC 03	The ability to be critical and self-critical.
GC 04	Interpersonal skills.
GC 05	Ability to motivate people and move towards a common goal.
GC 06	Ability to develop the language and communicative culture of the researcher; ability to communicate with representatives of other professional groups of different levels (with experts from other fields of knowledge / types of economic activity).
GC 07	Value and respect diversity and multiculturalism.
GC 08	Ability to work in an international context.
GC 09	Ability to show initiative and resourcefulness.
GC 10	Ability to act on the basis of ethical considerations (motives).
GC 11	Determination and persistence on the tasks and duties taken.
GC 12	Ability to determine economic indicators and ensure the quality of work in the development and implementation of integrated actions and projects with respect to working conditions, provisions of civil protection and environmental protection.
GC 13	Ability to act socially and consciously.
GC 14	Ability to understand human capabilities and gender issues.
GC 15	Ability to perform research work with elements of scientific novelty.
6.3. Professional (specialized, subject) competencies	
6.3.1. Professional competencies in specialty	
PC1 01	Ability to work in a group on large projects in the field of automobile transport.
PC1 02	Ability to apply a system approach to solving engineering problems based on research in an additional professional specialization.
PC1 03	Ability to understand the needs of users and customers and the importance of such issues as aesthetics in the design process in the field of automobile transport.
PC1 04	Ability to understand and take into account social, environmental, ethical, economic and commercial considerations that influence the implementation of technical solutions in automobile transport.
PC1 05	Ability to demonstrate understanding of the broader interdisciplinary engineering context and its main principles in solving scientific and industrial problems in the field of automobile transport.
PC1 06	Ability to demonstrate an understanding of the need to adhere to professional and ethical standards of high level in solving set tasks.
PC1 07	Ability to demonstrate understanding of the legal framework relevant to the functioning of Ukraine's automobile transport objects, in particular personnel, health, safety and risk (including environmental risk).
PC1 08	Ability to demonstrate a broad understanding of the quality problems of processes and objects of automobile transport.
PC1 09	Ability to demonstrate understanding of the requirements for the specialty activities, conditioned by the need to ensure sustainable development of Ukraine, its strengthening as a democratic, social and legal state.

PC110	Ability to explore, analyze and improve the technological processes of automobile transport.
PC111	Ability to identify automobile transport objects to improve technical equipment and technology.
PC112	Ability to scientifically substantiate the choice of materials, equipment and measures for the implementation of the latest technologies in automobile transport.
PC113	Ability to assess risks in the planning or implementation of new technological processes in the field of automobile transport.
PC114	Ability to carry out analysis and synthesis competently when studying technical systems of automobile transport objects.
PC115	Ability to choose and apply in practice the research methods, planning and conduct the necessary experiments, interpret the results and draw conclusions about the optimality of the decisions taken in the field of production, operation and repair of automobile transport objects.
PC116	Ability to use the laws and principles of engineering for additional professional orientation, high-level mathematical apparatus for the design, construction, production, installation, operation, maintenance and disposal of objects, phenomena and processes in the field of automobile transport.
Competencies selected by the educational institution	
6.3.2. Competencies selected by the educational institution	
PCei 01	Ability to organize operational and service activities of units and the State Border guard bodies.
PCei 02	Ability to understand the basics of combat use and tactics of units of combined arms, units and large units.
PCei 03	Ability to organize all types of combat support in the course of combat operations.
PCei 04	Ability to organize the work of the headquarters of the state border guard services during the planning and implementation of operational and service activities in different conditions.
PCei 05	Ability to maintain high readiness of the state border guard authorities to carry out assignments, manage daily activities, and prepare management bodies.
PCei 06	Ability to organize communication in units and organs of state border guard, as well as in general-military units in different conditions.
PCei 07	Ability to organize an effective system of informational and analytical support to support decision-making processes for preventing, countering and neutralizing threats to border security at the level of the state border guard body.
PCei 08	Ability to organize management of forces and means of material, technical and engineering support in different conditions.
PCei 09	To have the skills of providing medical assistance to victims while performing tasks.
PCei 10	To have the skills of driving the fighting vehicles of the State Border guard Service of Ukraine.
6.3.3. Competencies selected by students	
PCst 01	Ability to organize physical and fire training activities in the State Border guard bodies.
7. Program learning outcomes	
7.1. Program learning outcomes in specialty	
PLO 01	To be able to set, explore, analyse and solve complex engineering problems and problems in the field of automobile transport, which requires updating and integration of knowledge, including under incomplete / inadequate information and conflicting requirements.

PLO 02	To demonstrate the ability to carry out research and / or innovation activities in the creation, operation and repair of automobile transport objects.
PLO 03	To demonstrate the ability to use specialized conceptual knowledge on the creation, operation and repair of automobile vehicle objects acquired through training and / or professional activities, including knowledge and understanding of the latest advances that provide the ability to innovate and research.
PLO 04	To demonstrate the ability to critically reflect on problems in the field of automobile transport, including the border with related industries, engineering sciences, physics, ecology, economics.
PLO 05	To demonstrate the ability clearly and unambiguously inform about the conclusions on the issues of the creation, operation and repair of automobile transport objects, as well as knowledge and explanations, which justify them, to specialists and non-professionals, in particular to those who study.
PLO 06	To be able to carry out technical and economic analysis, comparison and study of the design, engineering, manufacture, repair, renovation, operation of road transport.
PLO 07	To be able to make decisions on engineering issues for the creation, maintenance and repair of motor transport in complex and unpredictable conditions, including the use of modern forecasting and decision support.
PLO 08	To demonstrate the ability to be responsible for the development of professional knowledge and practice of the team in the creation, operation and repair of automobile transport, assessment of its strategic development.
PLO 09	To be able to offer new technical solutions and apply new technologies.
PLO 10	To be able to apply in their professional activities existing universal and specialized systems lifecycle management (PLM), computer-aided design (CAD), manufacturing (CAM) and engineering studies (CAE).
PLO 11	To be able to freely use modern methods of collecting, processing and interpreting scientific and technical information for the preparation of project and analytical decisions, expert conclusions and recommendations.
PLO 12	To be able to design and implement energy-saving technologies.
PLO 13	To be able to choose and apply the necessary equipment, tools and methods for solving engineering tasks related to professional activities.
PLO 14	To demonstrate the ability to organize and manage the work of the primary production, design or research unit.
PLO 15	To be able to find optimal solutions for the production of automobile transport products, taking into account the requirements of quality, reliability, energy efficiency, safety of life, cost and terms of execution.
PLO 16	To be able to calculate the characteristics of automobile transport objects.
PLO 17	To be able to apply advanced methods and technologies, to modify existing ones and to develop new methods and / or tasks, to take measures for the effective performance of professional tasks.
PLO 18	To demonstrate the ability to partially or fully manage integrated engineering activities in the field of automobile transport.
PLO 19	To be able to evaluate the significance of the results of integrated engineering activities in the field of automobile transport.
PLO 20	To demonstrate the ability to further study in the field of automobile transport, engineering and related fields of knowledge, which is largely autonomous and independent.
PLO 21	To be able to choose necessary methods and means of research; develop and analyse physical, mathematical and computer models of research objects relating to the creation, operation and repair of automobile transport objects.

PLO 22	To demonstrate the ability to share their knowledge, decisions and grounds with specialists and non-specialists in a clear and unambiguous manner, to present the results of their work in the form of reports, abstracts, scientific articles, reports and applications for inventions that are executed in accordance with the established requirements.
PLO 23	To demonstrate the ability to manage technological processes in accordance with official duties, to provide technical safety of production in the field of their professional activities.
PLO 24	To be able to carry out technical and economic analysis, comparison and study of the design, engineering, manufacture, repair, renovation, operation of automobile transport.
PLO 25	Ability to solve complex problems and problems related to the design, construction, production, repair, renovation, operation of automobile transport objects in accordance with the additional professional activity.
PLO 26	To demonstrate the ability to identify risks, provide personal security and safety of other people in the field of professional activities.
PLO 27	To demonstrate the ability to use the quality system and product certification in the professional sphere.
Program learning outcomes selected by educational institution	
7.2. Program learning outcomes selected by educational institution	
PLOei 01	To substantiate the content and to develop proposals on the organization of operational and service activities of units and the State Border guard bodies.
PLOei 02	To substantiate the content and to develop proposals for the organization of interaction between units and the State Border guard bodies with the military elements, units and large unites during joint implementation of tasks.
PLOei 03	Ability to organize combat support of the mechanized (tank) brigade of the Land Forces of the Armed Forces of Ukraine in various types of combat, as well as make decisions on the use of units of the branches.
PLOei 04	To organize the work of the headquarters of the border guard detachment with the tasks, plan operational and official activities of the bodies and the State Border guard units.
PLOei 05	To develop operational-service documents, to bring operative-service tasks to subordinate units; to ensure the maintenance of the interaction of its management.
PLOei 06	To demonstrate knowledge of procedure of bringing the State Borderguard bodies to a higher degree of readiness.
PLOei 07	To demonstrate the functions of planning, organization, motivation and control in the State Border guard bodies regarding the day-to-day activities, preparation of management bodies.
PLOei 08	To substantiate the content and to develop documents on organization of communication in the units and the State Border guard bodies, as well as in general-military units in different conditions.
PLOei 09	To organize the information-analytical support of operative-service activity of the State Border guard bodies and to carry out the risk analysis in the field of border security.
PLOei 10	To substantiate and develop proposals on the organization of management of forces and means of material, technical and engineering support in different conditions.
PLOei 11	To provide medical assistance to victims while performing tasks.
PLOei 12	To drive combat vehicles of the State Border guard Service of Ukraine.
7.3. Program learning outcomes selected by students	
PLOst 01	To organize physical and fire training activities in the State Border guard bodies.

8. Resource support for the program implementation	
Staffing	<p>The staffing meets the licensing requirements in terms of staffing requirements for conducting educational activities in the sphere of higher education, which is confirmed by such indicators:</p> <ul style="list-style-type: none"> - for the implementation of the educational program at the Faculty of Engineering and Technology, departments were established: general scientific and engineering disciplines, vehicles and special equipment, engineering support and technical means of border guarding. The Administration Department is responsible for the training of higher education trainees in this specialty; - the working team, which is responsible for the training of higher education trainees in this specialty, consists of three workers of academic staff; - the head of the working team (the guarantor of the educational program) - Doctor of Technical Sciences (specialty 05.01.04, 05.22.01), Associate Professor (head of the department), has a scientific and pedagogical work experience of 22 years. Other scientific and pedagogical workers, who are planned to be involved in the implementation of the educational program, have degrees and/or academic ranks, as well as a confirmed level of scientific and professional activities. <p>It is possible to involve foreign experts and specialists of other educational and scientific institutions, establishments and organizations in the educational process on the basis of agreements / contracts / memoranda / protocols / consents concluded within the framework of international and inter-university cooperation, as well as representatives of the relevant level of qualification of the State Border guard bodies, Regional Directorates, Administration of the State Border guard Service of Ukraine.</p>
Materiel and technical support	<p>The materiel and technical support meets the licensing requirements in terms of technological requirements for conducting educational activities in the sphere of higher education, which is confirmed by such indicators:</p> <ul style="list-style-type: none"> - provision of premises for conducting training sessions and control activities is 5.5 square meters per person for the declared contingent of students; - provision of multimedia equipment for simultaneous use in classrooms – 30%; - available social infrastructure: libraries+ with a reading room, dining rooms, a cultural centre, an assembly hall, sports halls and playgrounds, an occupational health facility; - provision of higher education trainees with hostels – 100%.
Information, teaching and training support	<p>The information, teaching and training support meets the licensing requirements in terms of technological requirements for conducting educational activities in the sphere of higher education, which is confirmed by such indicators:</p> <ul style="list-style-type: none"> - provision of the library with domestic and foreign specialized periodicals of the corresponding or related profile – 7 names; - access to databases of periodical scientific publications in English of the corresponding or related profile;

	<p>- description of the educational program; - curriculum and explanatory note.</p>
9. Academic mobility	
National credit mobility	<p>Individual academic mobility is realized within the framework of inter-university agreements / contracts / memoranda on the establishment of scientific and educational relations to meet the needs of the development of education and science with such institutions: National Transport University (Kyiv), Kharkiv National Automobile and Highway University (Kharkiv), the National Academy of National Guard of Ukraine (Kharkiv), the Ivan Cherniakhovskyi National Defence University of Ukraine (Kyiv), the Hetman Petro Sahaidachnyi National Army Academy (Lviv).</p> <p>In addition, leading experts from the relevant higher educational institutions of Ukraine may be involved in the management of the scientific work of the trainees on the individual conditions.</p> <p>It is allowed to transfer credits received in other higher educational institutions of Ukraine, provided that the acquired competencies are relevant.</p>
International credit mobility	<p>International credit mobility and international educational and scientific and technical cooperation of educational institutions are provided in accordance with signed international documents, in particular:</p> <p>The Memorandum of Understanding and Cooperation between Educational Institutions in a number of EU Member States and Eastern Partnership Countries (since 2017);</p> <p>The Protocol between the NASBGS and the High School of International Relations and Public Communication (Chelm, Republic of Poland, 2011);</p> <p>Understanding between Bohdan Khmelnytskyi National Academy of the State Border Guard Service and High School Police (Szczytina, Republic of Poland, 2011);</p> <p>Annual plan of cooperation between NASBGS and the Training Centre named after the Soldiers of Border Guards (Kętrzyn, Republic of Poland).</p>
Training of foreign students obtaining higher education	<p>It is provided in case of conclusion of international agreements with observance of information security procedures.</p>