

**MINISTRY OF DEFENCE OF UKRAINE
NATIONAL DEFENCE UNIVERSITY OF UKRAINE**



EDUCATIONAL AND SCIENTIFIC PROGRAM

“Civil security”

the third (educational and scientific) degree of higher education

Specialty № 263 Civil security

Area of expertise № 26 Civil security

**APPROVED BY THE SCIENTIFIC COUNCIL OF
THE NATIONAL DEFENCE UNIVERSITY OF
UKRAINE**

**Kyiv
2024**

PREFACE

The educational and scientific programme ‘Civil Security’ of the third (educational and scientific) level of higher education for the preparation of Doctors of Philosophy in the field of knowledge ‘Civil Security’ in the speciality ‘Civil Security’ is developed in accordance with the requirements of the Law of Ukraine ‘On Higher Education’ (as amended), the Resolution of the Cabinet of Ministers of Ukraine of 23.03.2016 No. 261 ‘Procedure for the training of applicants for the degree of Doctor of Philosophy and Doctor of Science in higher educational (as amended) and No. 1341 of 23.11.2011 ‘On Approval of the National Qualifications Framework’ (as amended) of Qualifications’ (as amended by the Resolutions of the Cabinet of Ministers of Ukraine No. 509 of 12.06.2019 and No. 25.06.2020 No. 519) and No. 44 of 12.01.2022 ‘On Approval of the Procedure for Awarding Doctors of Philosophy and Cancellation of the decision of a one-time specialised academic council of a higher education institution, scientific institution to award the degree of and the Order of the Ministry of Defence of Ukraine of 15.02.2019 No. 65 ‘On the distribution of the main areas of scientific research between scientific institutions, higher military educational institutions, military educational units of higher education institutions of the Ministry of Defence of Ukraine and the Armed Forces of Ukraine’, Standard of higher education in the speciality 263 Civil Security for the third (educational and scientific) level of higher education (approved by the Order of the Ministry of Education and Science of Ukraine dated 24.12.2021 No. 1438).

The educational and scientific programme ‘Civil Security’ is developed taking into account the recommendations and recognised scientific practices of scientific education in the European Education Area, in particular: Salzburg Principles (Salzburg I Conclusion and Recommendation from the Bologna Seminar on ‘Doctoral Programmes for the European Knowledge Society’, 2005 & Salzburg II ‘Initiative Recommendations of the European University Association’, 2010).

Developed by a working group consisting of:

Professor of the Air Force Logistics Department of the Institute of Aviation and Air Defence of the National University of Defence of Ukraine, Doctor of Technical Sciences, Associate Professor, Colonel Oleksandr AVRAMENKO;

Head of the Department of Electromagnetic Warfare of the Institute of Information Technologies and Cyber Defence of the National Defence University of Ukraine, Doctor of Technical Sciences, Professor Timur KURTSEITOV;

Leading Research Scientist at the Scientific and Organisational Department of the Centre for Military and Strategic Studies of the National Defence University of Ukraine, Doctor of Technical Sciences, Professor Mykola KHOMIK;

Head of the Department of Chemical, Biological, Radiological, Nuclear Defence and Civil Security of the Institute of Logistics and Support of Troops (Forces) of the National Defence University of Ukraine, Candidate of Technical Sciences Colonel Valentyn ROMANIUK.

Guarantor of the educational and scientific programme:

Professor of the Air Force Logistics Department of the Institute of Aviation and Air Defence of the National University of Defence of Ukraine, Doctor of Technical Sciences, Associate Professor, Colonel Oleksandr AVRAMENKO.

Stakeholders involved:

Deputy Head of the University for Research, Candidate of Military Sciences, Professor, Major General Pavlo SHCHYPANSKYI;

Head of the Department for Organisation of Civil Protection Measures - Deputy Head of the Civil of the Main Directorate of Mine Action, Civil Protection and Environmental Safety, Candidate of Technical Sciences, Colonel Andrii PARTALIAN;

Adjunct (full-time) of the Scientific and Methodological Centre for the Organisation of Scientific and Technical Activities of the National Defence University of Ukraine, Colonel Yurii SARAPIN;

Graduate student - Senior Lecturer at the Department of Chemical, Biological, Radiological, Nuclear Defence and Civil Security of the Institute of Logistics and Support of Troops (Forces) of the National Defence University of Ukraine, Colonel Bohdan TERTYSHNYI, Doctor of Philosophy.

Reviews and feedback from external stakeholders:

1. Deputy Director of the Department - Head of the Division for the Organisation of Educational Activities of the Department of Military Education and Science Department of the Ministry of Defence of Ukraine, Candidate of Military Sciences, Colonel Maksym KASIANENKO.

2. Head of the Innovation Projects Department of the Central Military Science Directorate of the General Staff of the Armed Forces of Ukraine, Doctor of Technical Sciences, Professor Colonel Volodymyr KOTSIURBA.

3. Head of the Department of Civil Protection and Mine Action of Lviv State University of Security Doctor of Technical Sciences, Associate Professor, Lieutenant Colonel of the Civil Defence Service Roman YAKOVCHUK.

1. Profile of the Educational and Scientific Programme

1 – General Information	
Full name of the institute/faculty	The National Defence University of Ukraine
Higher education degree and qualification	Philosophy Doctor of Civil Security
The official name of the educational program	Civil Security
Diploma Type and the educational program scope	Philosophy Doctor in “Civil Security” with the specialization “ Civil Security”, single, the educational component scope is 46 ECTS credits. Training duration - 4 years
Accreditation availability	
Cycle/degree	NRC of Ukraine – 3 cycle / 8 level, QF-EHEA – Third Cycle / EQF-LLL– Level 8
Preconditions	The second (master's) level of higher education. The admission requirements are determined by the Admission Rules of the National Defence University of Ukraine, which are approved by the University Academic Council.
Language(s) of instruction	Ukrainian and English
The duration of the educational program	Before updating or introducing a new educational program due to changes in the regulatory framework, based on accreditation results, or at the request of the client (within the accreditation period).
Internet address of permanent program placement	https://nuou.org.ua/

2 – The purpose of the educational program
The training of specialists capable of generating new ideas and solving complex problems in the field of civil security, involving a deep rethinking of existing knowledge and the creation of new, comprehensive knowledge and/or professional practices.
3 – Program characteristics

<p>Subject area (area of knowledge, specialty, specialization)</p>	<p><i>Object of Study and/or Activity:</i> Processes of researching phenomena and issues in the field of civil security.</p> <p><i>Learning Objectives:</i> Acquiring the ability to solve complex problems in the field of civil security, expanding and reevaluating existing knowledge and professional practices, initiating, planning, implementing, and adjusting a consistent process of in-depth scientific research with adherence to academic integrity, critical analysis, evaluation, and synthesis of new and complex ideas.</p> <p><i>Theoretical Content of the Subject Area:</i> Concepts, theories, and principles of scientific cognition and patterns of phenomena and processes related to the development of preventive measures and innovative solutions in the field of civil security.</p> <p><i>Methods, Methodologies, and Technologies:</i> Methods for analyzing, evaluating, modeling, forecasting, optimizing systems and processes, and decision-making in the field of civil security, as well as modern digital technologies.</p> <p><i>Tools and Equipment:</i> Information and analytical tools, devices, and equipment; digital technologies, information systems, and software products.</p> <p>(Civil Security 26, Civil Security 263)</p>
<p>Educational program orientation</p>	<p>Educational and Scientific Program (Philosophy Doctor), Academic.</p>
<p>The main educational program focus and specialization focus</p>	<p>The educational and scientific program is aimed at training highly qualified research and academic staff capable of solving significant problems and independently conducting innovative scientific and technical research with both theoretical and practical relevance in the field of Civil Security.</p> <p>Keywords: civil security, emergency rescue forces, emergencies, emergency monitoring, emergency forecasting, detection and alert system for radiation, chemical, and biological contamination.</p>
<p>Program peculiarities</p>	<p>The program is oriented toward a comprehensive approach to training specialists in the field of civil security for the Defense Forces and allows for the formation of an individualized educational trajectory.</p> <p>The research component of the educational and scientific program is determined by the adjunct's individual plan.</p>
<p>4 – Graduates applicability for further employment and education</p>	

Graduates applicability	Positions for research and academic staff in research institutions and higher education establishments, as well as engineering, expert, and analytical roles in research and other institutions and departments, government bodies, and local authorities.
Further education	Obtaining a Doctor of Science degree, advancing qualifications at leading universities and research institutions.
5 – Teaching and evaluation	
Teaching and studying	Problem-oriented learning aimed at acquiring competencies necessary for solving complex problems in the field of civil security. Mastery of the methodology of scientific and pedagogical work in higher education.
Evaluation	Current control (surveys, completion of individual tasks related to sections of the dissertation research). Final control (exams, credits). Public defense of scientific achievements in the form of a dissertation.
6 – Program competencies	
Integral competence	The ability to generate new ideas, solve complex problems in the field of civil security, apply the methodology of scientific and pedagogical activity, as well as conduct independent scientific research, the results of which have scientific novelty, theoretical, and practical significance.
General competencies	GC01. The ability to search, process, and analyze information from various sources
	GC02. The ability to work in an international context.
	GC03. The ability to develop and manage projects.
	GC04. Ability to solve complex civilian security problems on the basis of a systematic scientific outlook and general cultural outlook in compliance with the principles of professional ethics and academic integrity.
	GC05. Skills in using information and communication technologies.
Special (professional, subject-orientated) competencies	SC01. The ability to conduct original research and achieve scientific results that generate new knowledge in the field of civil security and related interdisciplinary areas.
	SC02. The ability to apply modern methodologies, methods, and tools for experimental, empirical, and theoretical research in the field of civil security, as well as modern digital technologies, databases, and other electronic resources, specialized software in scientific and educational activities.

	SC03. The ability to engage in scientific and pedagogical activities in higher education in the field of civil security.
	SC04. The ability to identify, formulate, and solve research problems in the field of civil security, evaluate and ensure the quality of the research being conducted.
	SC05. The ability to create management models for processes in the field of civil security using physical, mathematical models, and computer technologies.
7–Program Learning outcomes	
General and professional training	PLO01. To possess advanced conceptual and methodological knowledge in the field of civil security and at the intersection of related disciplines, as well as research skills sufficient for conducting scientific and applied research at the level of the latest global achievements in the relevant area of civil security, acquiring new knowledge and/or implementing innovations.
	PLO02. To confidently present and engage in discussions regarding research findings, as well as scientific and applied issues of civil security, with both experts and non-experts, in both the national and foreign languages, and to disseminate research results through publication in scientific journals.
	PLO03. To formulate and test ideas, hypotheses, strategies, and solutions, using appropriate evidence to support conclusions, including results from experimental, empirical, and theoretical research in the field of civil security, computer modelling, and available data.
	PLO04. To apply modern tools and technologies for searching, processing, and critically analysing data, including statistical methods for analysing large-scale and/or complex data sets, specialized databases, and information systems.
	PLO05. To plan and conduct experimental and/or theoretical research in civil security and related interdisciplinary fields using modern tools, while adhering to professional and academic ethics, and critically analysing the results of one's own research as well as the findings of other researchers in the context of current knowledge on the investigated problem.
	PLO06. To carry out pedagogical activities in the field of civil security, utilizing its scientific, educational-methodological, and regulatory framework, and applying effective teaching methods.

	<p>PLO07. To identify scientific and practical problems in the field of civil security, deeply understand the methodology of scientific research, and apply it in one's own research as well as in teaching practice.</p> <p>PLO08. To apply modern digital technologies, methods of modelling, forecasting, optimization, and decision-making in professional activities within the field of civil security.</p> <p>PLO09. To develop, improve, and study conceptual and computational models of processes and systems, effectively using them to acquire new knowledge and/or create innovative products in the field of civil security and related interdisciplinary areas.</p> <p>PLO10. The ability to apply information technologies and modern modelling methods using the latest applied software packages and programs for the scientific justification and validation of one's own research.</p>
8 – Program implementation resources	
Staffing/personnel	The implementation of the program involves academic and scientific staff who hold a scientific degree and/or academic title, along with a proven level of scientific activity.
Logistics	For the implementation of the program, the university's resources are utilized, including lecture halls, computer laboratories, a comprehensive library (with electronic access) and reading room, a scientific centre for distance education, a simulation modelling centre, athletic fields, a stadium, a swimming pool managed by the Ministry of Defence of Ukraine, a medical facility, dining halls, and comfortable student dormitories.

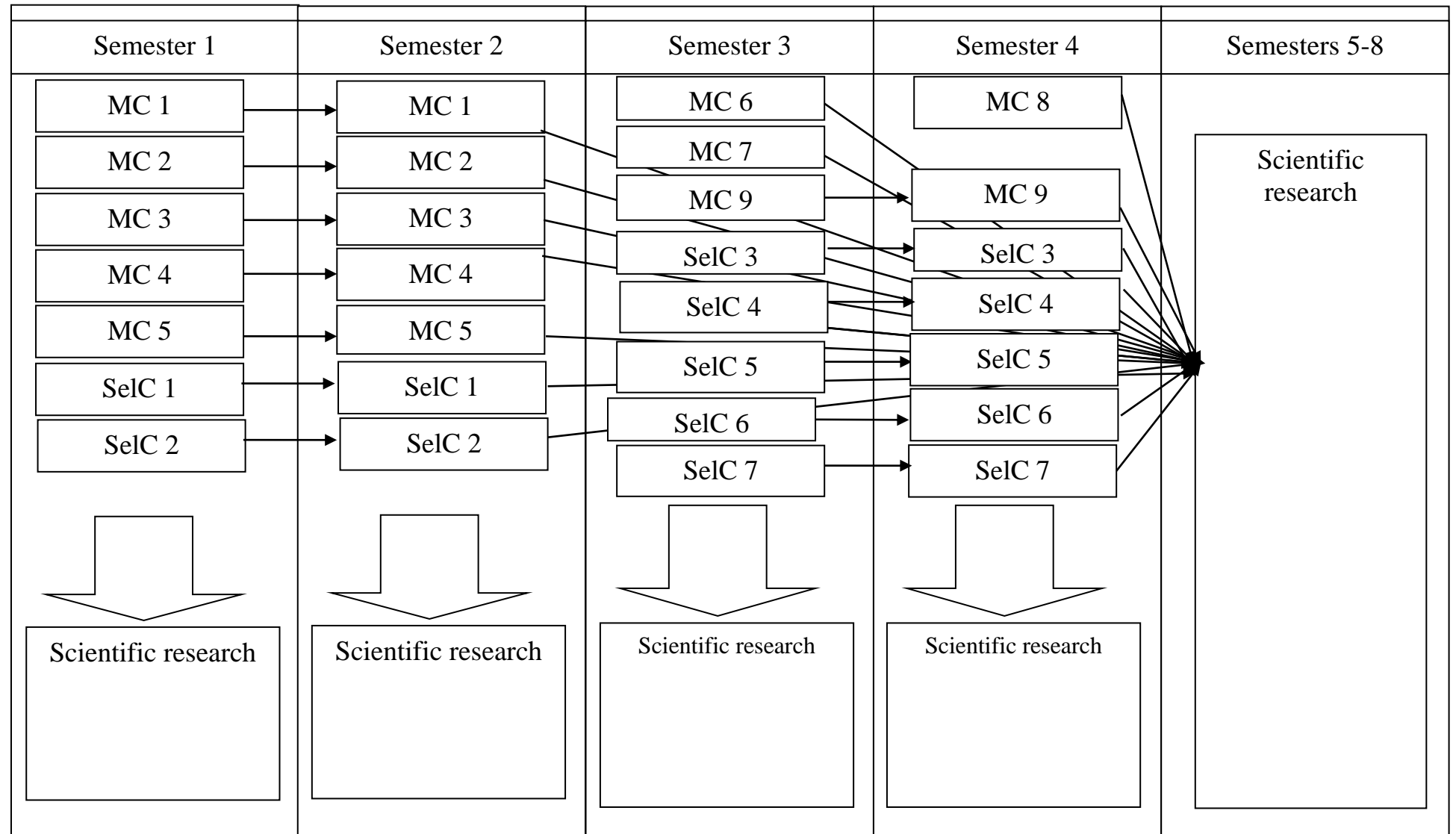
<p>Information, education and methodology support</p>	<p>The information support meets the Licensing Conditions for Educational Activity in terms of technological requirements, as evidenced by the following indicators: the library is equipped with an adequate selection of domestic and international professional periodicals of relevant or related fields; all adjuncts have unrestricted Internet access; there is access to databases of scientific periodicals in English covering relevant or related disciplines; the official website of the National Défense University of Ukraine provides comprehensive information about its activities, available in English and adapted for individuals with disabilities; all necessary documents related to the educational program are available, including the educational-professional program, curricula, course syllabi, practical training programs, and methodological materials for final assessments of higher education seekers.</p> <p>All essential information is accessible on the National Défense University of Ukraine distance learning platform.</p>
<p>9 – Academic mobility</p>	
<p>National credit mobility</p>	<p>This is carried out in accordance with agreements and memorandums on scientific and scientific-technical cooperation with institutions of the National Academy of Sciences of Ukraine, higher military educational institutions, military training units of higher education institutions, and scientific organizations.</p>
<p>International credit mobility</p>	<p>Activities are conducted in compliance with the requirements established by Ukrainian legislation regarding the protection of state secrets. In accordance with cooperation agreements with foreign military educational institutions, joint educational and research projects (such as ERASMUS+, DEEP UKRAINE Programme), and participation in international conferences, further international collaboration is facilitated.</p>
<p>Training of foreign applicants for higher education</p>	<p>According to special agreements within the framework of educational and research projects</p>

2. The list of educational and scientific program components and their logical sequence

2.1 The list of educational and scientific program components

Code of a/d	Educational and professional program components (academic disciplines, course projects (works), practices, qualification work)	Number of credits	Form of summary control
Mandatory components of the ESP			
1. Obtaining general scientific (philosophical) competences			
MC1	Philosophy and methodology of science	3	Examination
MC2	Theory and methodology of scientific research in higher military school	3	Examination
2. Obtaining universal research skills			
MC3	Basics of working with scientific projects and scientific and metric databases	3	Test
MC4	Application of modern information technologies in scientific activity	3	Examination
3. Obtaining language competences			
MC5	Foreign language in scientific activity	6	Examination
4. Obtaining in-depth knowledge of civilian security			
MC6	Conceptual problems in the field of civilian security	5	Examination
MC7	Theoretical foundations of research in the field of civilian security	4	Examination
MC8	Basics of modelling in the field of civilian security	3	Examination
5. Practice			
MC9	Pedagogical (research) practice	4	Report
Total amount of mandatory components		34	
6. Scientific component			
	Scientific research	194	Defence
Selected components of the ESP			
1. Disciplines of free choice for the adjunct			
SelC1	Modern pedagogical rhetoric	3	Examination
SelC2	Methodology of teaching in higher military school	3	Test
SelC3	Methods of military-applied research and modelling, application packages (programs)	3	Test
SelC4	Philosophy of war and peace	3	Test
SelC5	Basics of evaluating the effectiveness of management processes and their optimisation	3	Test
2. Practice			
SelC6	Pedagogical practice	3	Report
SelC7	Research practice	3	Report
Total amount of selective components that can be chosen by the applicant		12	
Total amount of educational and scientific program		46	
Total amount of applicants training		240	
<p>Procedure for selecting study disciplines. The applicant chooses academic disciplines from the list of selective disciplines from this ESP or other ESPs (EPs). Or the applicant can form his own set of selective disciplines. Moreover, the applicant has the right to choose individual modules (topics) of academic disciplines in agreement with his teacher/supervisor, as well as forms and procedure for reporting for a separate module (topic). The total amount of selective components is no less than 12 ECTS credits.</p>			

2.2 Structural and logical scheme of the educational and scientific program



3. Form of certification of higher education applicants

Public defence of scientific achievements is in the form of a dissertation.

Certification is carried out openly and publicly in accordance with the requirements of Ukrainian legislation in the field of state secrets.

Successful completion of the individual curriculum and individual research curriculum of the applicant is a precondition for admission to the defence.

The certification ends with the issuance of a document of the established form on awarding the degree of Doctor of Philosophy to the applicant.

4. Matrix of correspondence of program competencies to the components of the educational and scientific program

	MC1	MC2	MC3	MC4	MC5	MC6	MC7	MC8	MC9	SeIC1	SeIC 2	SeIC 3	SeIC 4	SeIC 5	SeIC 6	SeIC 7
GC01		+	+	+	+		+					+				
GC02	+				+	+								+		
GC03			+	+				+	+					+		+
GC04	+		+	+		+		+					+			
GC05			+	+				+	+			+				+
SC01		+	+				+	+								
SC02		+		+			+					+		+	+	+
SC03	+					+			+	+	+				+	+
SC04						+	+	+	+					+	+	
SC05				+				+				+		+		

5. Matrix of providing program learning outcomes with relevant components of the educational and scientific program

	MC1	MC2	MC3	MC4	MC5	MC6	MC7	MC8	MC9	SeIC1	SeIC2	SeIC3	SeIC4	SeIC5	SeIC6	SeIC7
LO01		+	+	+		+	+	+				+		+		
LO02	+				+	+							+	+		
LO03	+	+					+	+				+		+		
LO04			+	+				+	+			+				
LO05	+			+			+		+							
LO06	+	+							+	+	+				+	
LO07	+	+	+			+	+	+	+			+		+		
LO08				+				+	+			+		+		+
LO09		+	+	+				+				+		+		
LO10				+					+			+		+		

6. Total volume of the dissertation

The dissertation for the degree of Candidate of Sciences should have a main volume of 110-155 pages (from 4.5 to 7 author's sheets) formed in accordance with the requirements established by the Ministry of Education and Science.

Tables and illustrations that occupy the whole page area are not included in the total volume of the dissertation. One author's sheet is equal to 40 thousand printed characters, including numbers, punctuation marks, spaces between words, which is approximately 24 pages of printed text when formatted in a word processor such as Word with the following settings: font - Times New Roman, font size - 14 pt.

The dissertation is printed on one or both (if you wish) sides of white A4 paper sheets (210x297 mm) with 1,5-line intervals.

The font size of the main text (pin) - mitel (14 printing points). It is allowed to prepare a dissertation in LaTeX format with the appropriate style.

The text of the dissertation should be printed with the following margins: left - no less than 20-25 mm, right - no less than 10 mm, top - no less than 20 mm, bottom - no less than 20 mm.

7. List of research areas for higher education PhD students

1. Research of the causes of emergencies related to military actions.
2. Methods and tools for monitoring and forecasting natural phenomena and technological processes that cause to the occurrence and development of emergencies during wartime.
3. Methods and tools for preventing, containing, and managing emergencies during combat operations.
4. Development of models for the processes of occurrence, development, localisation and elimination of emergencies during wartime.
5. Optimization of emergency rescue operations related to emergencies during combat operations.
6. Minimization of the consequences of emergencies related to military actions.