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### **UPDATING OF THE SEP «TECHNOGENIC AND ECOLOGICAL SAFETY» AT THE THIRD LEVEL OF SPECIALTY 183 «ENVIRONMENTAL PROTECTION TECHNOLOGIES» FOR A HIGHER EDUCATION INSTITUTION WITH SPECIFIC LEARNING CONDITIONS**

Taking into account the experience of passing the accreditation examination procedure of the Educational and Scientific Program (ESP) of Higher Education «Technogenic and Ecological Safety» at the third (educational and scientific) level in specialty 183 «Environmental Protection Technologies» in the field of knowledge 18 «Production and Technologies» in February 2023 as a guarantor (accreditation certificate № 4160 dated 28.04.2023), which complies with the Higher Education Standard, approved and put into effect by Order of the Ministry of Education and Science of Ukraine № 1427 dated 23.12.2021 (<https://mon.gov.ua/static-objects/mon/sites/1/vishcha-osvita/zatverdzeni%20standarty/2021/12/24/183-Tekhn.zakh.navk.seredovyschchadokt.filos.pdf>), relevant Educational and Professional Program (EPP) of Higher Education at the second (master's) level in October 2023 (accreditation certificate № 6567 dated 14.14.2023) and at the first (bachelor's) level in February 2024 (accreditation certificate № 7306 dated 28.03.2024) as a member of project groups, and also on the example of conducting the accreditation examination procedure of the EPP «Environmental Protection Technologies» at the second (master's) level at the National University «Yurii Kondratyuk Poltava Polytechnic» (Order of NAQA № 1127-E dated 21.10.2024), EPP «Environmental Protection Technologies» at the first (bachelor's) level at the National Technical University «Dnipro Polytechnic» (Order of NAQA № 421-E dated 03.04.2025) and the ESP «Environmental Protection Technologies» at the third (educational and scientific) level at the National Transport University (Order of NAQA № 839-E dated September 09.09.2025), changes and additions were made to the draft of the specified ESP for the 2025/2026 academic year.

1. It is indicated that the specialty 183 corresponds to the Detailed Branch according to the International Standard Classification of Education ISCED-F 2013 code 0712 «Environmental Protection Technologies» in accordance with the Resolution of the Cabinet of Ministers of Ukraine dated 07.07.2021 № 762 «On Amendments to the List of Fields of Knowledge and Specialties in Which Higher Education Applicants Study» (<https://zakon.rada.gov.ua/laws/show/762-2021-%D0%BF#Text>).

2. The correspondence of specialty 183 and field of knowledge 18 of specialty G2 «Environmental Protection Technologies» and field of knowledge G «Engineering, Production and Construction» is indicated in accordance with the Resolution of the Cabinet of Ministers of Ukraine № 1021 of 30.08.2024 «On Amendments to the List of Fields of Knowledge and Specialties in Which Applicants for Higher and Professional Pre-Higher Education are Trained» (<https://zakon.rada.gov.ua/laws/show/1021-2024-%D0%BF#Text>).

3. The correspondence of the general competence «GC 05. The ability to acquire knowledge and understanding of the subject area and professional activity; acquisition of critical thinking skills and communication skills, the ability to show empathy; the ability to use information and communication technologies, to search, process and analyze information from various sources, to ensure personal and professional development, to generate new ideas, to apply best practices in professional activities, to motivate people and move towards a common goal, to act on the basis of ethical considerations (including oaths, statutes, codes, etc.), to be socially responsible and conscious, to show tolerance, respect for cultural diversity» and special competencies «SC 14. The ability to develop a program and educational and methodological materials for an academic discipline, the ability to plan, prepare and conduct training sessions and consultations, analyze and provide recommendations on the results of mastering educational components (cadets, students, trainees, adjuncts, postgraduates), to provide individual support (tutoring, mentoring) with the achievement of planned results taking into account individual characteristics and needs of the higher education institution, educational and scientific activities, the ability to develop criteria and choose tools and conduct assessment (certification) and provide feedback and recommendations based on its results» and «SC 15. Ability to justify, plan and implement a research project, analyze, test and publish the results of its implementation (presentation, report, theses, article, monograph), prepare a set of documents to obtain a document on the protection of intellectual property rights, the ability to prepare elements of the document flow of the department and other collegial bodies, participate in meetings and other professional associations, the ability to develop, monitor and improve (review and update) educational programs and prepare materials for their accreditation, the ability to carry out scientific/professional examination of research (scientific) or professional projects and provide expert advice», as well as the corresponding program learning results (PLR) of the provisions of the Professional Standard for the group of professions «Teachers of Higher Education Institutions», approved by Order of the Ministry of Economic Development, Trade and Agriculture № 610 of 23.03.2021 (<https://mon.gov.ua/npa/prozatverdzhennia-profesiinoho-standartu-vykladach-zakladu-vyshchoi-osvity1466>).

4. Competencies and PLR and educational components (EC) from the list of the mandatory block that require higher education students to acquire Soft Skills are identified.

5. Competencies and PLR and EC from the list of the mandatory block are identified, which provide for the achievement of Sustainable Development Goals in accordance with the Decree of the President of Ukraine № 722/2019 of 30.09.2019 «On the Sustainable Development Goals of Ukraine for the period up to 2030» (<https://zakon.rada.gov.ua/laws/show/722/2019#Text>).

6. The content of the Regulations on the training of candidates for the degree of Doctor of Philosophy and Doctor of Sciences at the National University of Civil Protection of Ukraine (NUCPU), approved by Order of the NUCPU № 330 dated 21.12.2024, and the Regulations on the procedure for awarding the degree of Doctor of Philosophy and canceling the decision of the one-time specialized academic council of the NUCPU, the Resolution of the Cabinet of Ministers of Ukraine № 476 dated 30.04.2024 «On approval of the List of priority thematic areas of scientific research and scientific and technical developments for the period until December 31 of the year following the termination or abolition of martial law in Ukraine» has been taken into account (<https://zakon.rada.gov.ua/laws/show/476-2024-%D0%BF#Text>), the Order of the SES of Ukraine № 618 dated 20.09.2013 «On approval of the Regulations on the organization of environmental support of the SES of Ukraine» (<https://zakon.rada.gov.ua/rada/show/v0618388-13#Text>), the Law of Ukraine № 3769-IX dated 04.06.2024 «On Amendments to Certain Laws of Ukraine Regarding the Mandatory Use of Liquid Biofuels (Biocomponents) in the Transport Sector» (<https://zakon.rada.gov.ua/laws/show/3769-20#Text>), the Topics of Scientific Research and Scientific and Technical (Experimental) Developments for 2025-2029, approved by Order of the Ministry of Internal Affairs of Ukraine № 326 dated 21.05.2024 (<https://mvs.gov.ua/normativno-pravovi-akti/nakaz-mvs-vid-21052024-326-pro-zatverdzhennia-tematiki-naukovix-dosliden-i-naukovo-texnicnix-eksperimentalnix-rozrobok-na-2025-2029-roki>), the Priority Areas of Scientific Activity of the SES of Ukraine (<https://nuczu.edu.ua/ukr/ nauka/priorytetni-napriamky-naukovoi-diialnosti>), the Civil Protection Code of Ukraine in the current version dated 12.09.2025 has been taken into account (<https://zakon.rada.gov.ua/laws/show/5403-17#Text>), Specialty Passport of 21.06.01 «Ecological Safety», approved by the Resolution of the Presidium of the Higher Attestation Commission of Ukraine № 33-07/7 dated 04.07.2001 ([https://zakon.rada.gov.ua/rada/show/va7\\_7330-01#Text](https://zakon.rada.gov.ua/rada/show/va7_7330-01#Text)), has been taken into account.

7. The elements have been introduced into the EC, the list of competencies, and PLR that correspond to the realities of the times of armed aggression and the prospects for the post-war restoration of our country's critical infrastructure.

8. The aspects of the implementation of the educational process in higher education institutions with specific learning conditions have been taken into account in the competencies and PLR of the educational component «Pedagogical Practice» (the volume has been increased to 6 ECTS credits).

9. The goal of the implementation of the ESP has been reformulated as follows: Training highly qualified specialists in environmental protection technologies, capable of producing new ideas, solving complex problems characterized by uncertainty of conditions and requirements, taking into account the needs of regions affected by military aggression, as well as institutions of the country's security and defense sector, conducting their own scientific research and pedagogical activities in the areas of technogenic and ecological safety and civil protection, promoting the development of their philosophical and linguistic competencies, soft skills, and the formation of universal skills of a researcher useful for ensuring the legally regulated level of technogenic and ecological safety in the conditions of the post-war reconstruction of the economy and critical infrastructure of the country in the context of sustainable development goals.

An English-language version of the ESP has also been developed. The updated and revised version of the ESP was approved at the meeting of the Academic Council of the NUCP of Ukraine of the SES of Ukraine on 26.06.2025, Protocol № 13 ([https://nuczu.edu.ua/images/topmenu/osvitnya\\_diyalnosti/osvitni\\_programi/2025/d/Teb.pdf](https://nuczu.edu.ua/images/topmenu/osvitnya_diyalnosti/osvitni_programi/2025/d/Teb.pdf)).

**Анотація.** Кондратенко О. М., Литвиненко О. О. Оновлення навчальної програми «Техногенна та екологічна безпека» для третього рівня спеціальності 183 «Технології захисту навколишнього середовища» для закладу вищої освіти зі специфічними умовами навчання. Наведено результати оновлення ОНП третього рівня за спеціальністю 183 для закладу вищої освіти зі специфічними умовами навчання.

**Ключові слова:** освітньо-наукова програма, технології захисту навколишнього середовища, актуалізація.

**Abstract.** Kondratenko O. M., Lytvynenko O. O. Updating of the SEP «Technogenic and Ecological Safety» at the third level of specialty 183 «Environmental Protection Technologies» or a higher education institution with specific learning conditions. The results of updating the third-level ESP in specialty 183 for a higher education institution with specific learning conditions are presented.

**Keywords:** educational and scientific program, environmental protection technologies, updating.