Profile of the educational programme «Environmental Protection Technology» in specialty 183 «Environmental Protection Technology»

1 - General information	
Full name of higher education institution	O.M. Beketov National University of Urban Economy in Kharkiv
Higher education degree and the title of qualification in the original language	Master in Environmental Protection Technology
Official title of the educational programme	Environmental Protection Technology
Type of diploma and the scope of the educational programme	Masters' Degree, singular, 90 ECTS credits, terms of study – 1 years and 4 months
Accreditation certificate	Ministry of Education and Science of Ukraine, Accreditation Certificate УД № 21006913, valid till 01.07.2024
Cycle / Level	The second (Masters') degree NQF of Ukraine – the 7th level FQ-EHEA – the 2nd cycle EQF-LLL – the 7th level
Admission requirements	University (bachelors') degree
Language (s) of teaching	Ukrainian
Duration of the educational programme	5 years
Internet address of permanent placement of the educational programme description	https://ecology.kname.edu.ua
2 – Object of the educational programme	
	Training of specialists capable of solving complex problems of environmental protection, characterized by uncertainty of terms and requirements
3 – Description of the educational programme	
Subject area	*Object of study* Modern environmental technologies for environmental protection and ensuring environmental safety *Theoretical content of the subject area* Scientific concepts, categories, principles, technologies of environmental protection at the national, regional and local levels *Methods, techniques and technologies* Methods of modeling systems and processes of technogenous and environmental safety, qualitative and quantitative chemical, physical, physicochemical, medical and biological methods and techniques. Methods of designing environmental protection systems and technologies

Orientation of the educational programme	Applied Professional Education
The key focus of the educational programme and specialization	Advanced higher education and professional training in the field of environmental protection technology Key words: the environment, environmental protection, environmental technologies, technogenous and environmental safety, resource- and energy-saving technologies, environmental risks, designing environmental protection technologies, renewable energy sources, the urban environment
Features of the programme	
4 – Graduate employability and further academic education	
Employability	Alumni graduated as Masters in Environmental Protection Technology are able to perform the following jobs according to the State Job Classifier (ДК 003:2010): 2149.2 Environmental Protection Engineer; 2149.2 Environmental Safety Engineer; 2442.2 Nature Resource Management Officer; 2213.2 Water Resource Engineer; 2213.2 Ecosystem Restoration Engineer
Further academic education	Earning the Doctoral (Third Cycle) Degree; further professional post-graduate training
5 – Instruction and assessment	
Instruction and learning	Student-centred learning, lectures, practical classes, independent learning, consultations, project work, preparation of Master's thesis
Assessment	Written exams, reports from practical training, presentations on individual assignments. Interim control during learning semesters, final examinations and credit sessions on specific disciplines, control assignments of calculation and drawing character, course papers. Public defense of Master's thesis.
6 – Programme competences	
Integral competence	To be able to solve complex tasks and problems in the field of environmental protection technologies in the implementation of professional activities or in the learning process, which involves research and/or innovation, characterized by complexity and uncertainty of terms and requirements.
General competences (GC) defined by the standard of higher education of the specialty	GC01. To be able to apply knowledge in practical situations. GC02. To be able to communicate in a foreign language. GC03. To be able to search, process and analyse information from various sources. GC04. To be able to generate new ideas (creativity). GC05. To be able to make substantiated decisions. GC06. To be able to develop and manage projects. GC07. Implementation of safe activities.
Professional competences of the specialty (PC) defined by the standard of higher education of the specialty	PC01. To be able to control and assess the environmental risks of technogenic objects and economic activity impacts on the environment. PC02. To be able to use scientifically substantiated methods of processing research results in the field of environmental protection technologies. PC03. To be able to plan, design and control the parameters of certain types of equipment, technics and environmental protection technologies. PC04. To be able to develop new and use known methods of disposal, disinfection and recycling of household and industrial waste.

	PC05. To be able to implement and use renewable energy sources, resource- and energy-saving technologies. PC06. To be able to monitor and evaluate the effectiveness of environmental measures and technologies used.
7 - Programme learning outcomes	
Programme learning outcomes defined by the standard of higher education of the specialty	PLO01. To be able to analyse complex systems, to understand their interrelations and organizational structure. PLO02. To be able to communicate fluently in state and foreign languages orally and in writing on professional issues, in particular, to present research and innovation results. PLO03. To be able to use modern communication and information technologies in the field of environmental protection, to collect, store, process and analyse information on the state of the environment and production field for solving professional tasks. PLO04. To be able to substantiate decisions aimed at minimizing environmental risks of economic activity at the national, regional and local levels. PLO05. To be able to effectively work in a team and an international team, have leadership skills. PLO06. To be able to perform an analysis of the socio-economical and environmental state of enterprises, settlements, districts, regions and develop strategies for their sustainable development. PLO07. To be able to develop Environmental Management and Auditing Systems adherent to ISO 14004, to define procedures and plan and realize environmental protection measures during whole Life Cycle of production. PLO08. To be able to design systems for integrated waste management and environmental-economic aspects of their utilisation, basics of landfill designing for waste disposal, assessing their impact on the environment and human health. PLO09. To be able to assess the threats of physical, chemical and biological pollution of the Biosphere and its consequences to humans and the environment, to be able to analyse changes that occur in the environment under impacts of natural and technogenous factors. PLO10. To be able to perform the assessment of impacts from industries on the environment and related responsibility for decisions made, to plan and carry out research on the industrial impacts on the environment. PLO11. To be able to organize the utilisation and sanitation of industrial and hazardous waste, to assess impact of industrial and hazardous waste on the environment. PLO12. To be able to implement and operate the renewable energy sources and resource-efficient technologies in industrial and social contexts. PLO13. To be able to use national and international environmental legislation norms in professional activity. PLO14. To be able to design systems and technologies for environmental protection.
8 – Resource support for programme implementation	
Staffing	The Department responsible for the Degree Programme is the Department of Urban Environmental Engineering & Management. The Programme Director is Associate Professor, Dr. Tetyana V. Dmytrenko. Scientific and pedagogical specialities (qualifications) of teachers correspond to the disciplines they teach according to the Curriculum

	Programme. Teaching of lecture disciplines is provided by teachers with scientific degrees and academic titles. Teachers have a confirmed level of scientific and professional activity. All learning disciplines are taught by experienced, qualified and certified teachers who have been trained at leading universities and research institutions both in Ukraine and abroad.
Material and technical support	Material and technical support of the degree programme satisfies the requirements and provides for effective training of learners and organization of the student's research work. The curriculum is supported with 2 specialised study laboratories – the Environmental Monitoring and the Applied Ecology lab equipped with modern equipment which are used for practical classes and students' researches; a specialised computer class with necessary hardware and software. Lectures and practical classes are organized using modern multimedia equipment. All university premises (educational, production, economic, sports, etc.) satisfy the norms of sanitary and state construction regulations.
Information, educational and methodological support	The information about educational programs, study, research and educational activities, the structure of the university, admission rules, announcements of events, news, etc. is distributed on the official website of the university (https://www.kname.edu.ua/). Information support for students on the organization of the educational process, the research activities of the teachers and students is posted on the official website of the department (https://ecology.kname.edu.ua). Free access of students to information and educational and methodical support used in the educational process is realized by means of: - the Scientific Library of the O.M. Beketov NUUEK, where all computers are connected to the World Wide Web. The reading hall provides access to the Internet resources using Wi-Fi technology. Available access to Web of Science and Scopus databases; - the specialised computer class of the department, where all computers are connected to the Internet; - the electronic repository (https://eprints.kname.edu.ua/) provides access to methodological and educational materials (educational and methodological complexes of disciplines, materials for individual work of students, internship programs, etc.) for students; - the electronic version of the scientific and technical journal "Municipal economy of cities" and materials of the scientific conferences; - MOODLE Distance-learning platform (https://cdo.kname.edu.ua, https://dl.kname.edu.ua). The Scientific Library of the O.M. Beketov NUUEK includes scientific, student and fiction subscriptions and the reading halls for 540 seats as well.
9 - Academic mobility	
National credit mobility	Students can participate in the national credit mobility programmes at universities providing for bachelors' degree programme in Environmental Protection Technology (183) via short study courses, seminars, summer and winter schools organised by these universities, with further transfer of learning credits in the frames of practical trainings.
International credit mobility	Students have a possibility to participate in international academic mobility programmes up to 6 months of studies under ERASMUS+ programme at University of Nova Gorica (Republic of Slovenia) and Middle East Technical University (ODTU-METU) (Turkey Republic)
Training of foreign	

applicants for higher education	