

## Degree Programme Profile «Environmental Protection Technology» for Speciality 183 «Environmental Protection Technology»

<b>1 - General Information</b>	
<b>Name of the higher education institution</b>	O.M. Beketov National University of Urban Economy in Kharkiv
<b>Degree Title in Original Language</b>	Master in Environmental Protection Technology Магістр, магістр з технологій захисту навколишнього середовища
<b>Official Title of the Degree Programme</b>	Environmental Protection Technology
<b>Degree Type, Scope and Terms of Study of the Degree Programme</b>	Masters' Degree, singular, 90 ECTS credits, terms of study – 1 years and 4 months
<b>Accreditation Agency</b>	Ministry of Education and Science of Ukraine, Accreditation Certificate УД № 21006913, valid till 01.07.2024
<b>Cycle / Level</b>	The second (Masters') degree NQF of Ukraine – the 7 <sup>th</sup> level FQ-EHEA – the 2 <sup>nd</sup> cycle EQF-LLL – the 7 <sup>th</sup> level
<b>Entrance Requirements</b>	University (bachelors') degree
<b>Language(s) of Instruction</b>	Ukrainian
<b>Term of Validity of the Degree Programme</b>	5 years
<b>Internet-address of the permanent placement of the Degree Programme description</b>	<a href="https://ecology.kname.edu.ua">https://ecology.kname.edu.ua</a>
<b>2 - The Aim of the Degree Programme</b>	
	Training of specialists capable of solving complex problems of environmental protection, characterized by uncertainty of terms and requirements
<b>3 - Features of the Degree Programme</b>	
<b>Subject</b>	<i>Object of study</i> Modern environmental technologies for environmental protection and ensuring environmental safety <i>Theoretical content of the subject area</i> Scientific concepts, categories, principles, technologies of environmental protection at the national, regional and local levels <i>Methods, techniques and technologies</i> 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
<b>Orientation of the Degree Programme</b>	Applied Professional Education
<b>Main Focus of the Degree Programme</b>	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
<b>Specific Features</b>	
<b>4 - Employment Opportunities and Further Education of Alumni</b>	
<b>Employment Opportunities</b>	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
<b>Further Education</b>	Earning the Doctoral (Third Cycle) Degree; further professional post-graduate training
<b>5 - Teaching and Evaluation</b>	
<b>Teaching and Learning</b>	Student-centred learning, lectures, practical classes, independent learning, consultations, project work, preparation of Master's thesis
<b>Evaluation</b>	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.
<b>6 – Програмні компетентності</b>	
<b>Integral competence</b>	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.
<b>General competencies (ZK),</b> specified by the degree programme	ZK01. To be able to apply knowledge in practical situations. ZK02. To be able to communicate in a foreign language. ZK03. To be able to search, process and analyse information from various sources. ZK04. To be able to generate new ideas (creativity). ZK05. To be able to make substantiated decisions. ZK06. To be able to develop and manage projects. ZK07. Implementation of safe activities.
<b>Professional competencies of the speciality (FK),</b> specified by the degree programme	FK01. To be able to control and assess the environmental risks of technogenic objects and economic activity impacts on the environment. FK02. To be able to use scientifically substantiated methods of processing research results in the field of environmental protection technologies. FK03. To be able to plan, design and control the parameters of certain types of equipment, technics and environmental protection technologies. FK04. To be able to develop new and use known methods of disposal, disinfection and recycling of household and industrial waste. FK05. To be able to implement and use renewable energy sources, resource- and energy-saving technologies. FK06. To be able to monitor and evaluate the effectiveness of environmental measures and technologies used.
<b>7 - Programme learning outcomes</b>	
<b>Learning outcomes,</b>	PR01. To be able to analyse complex systems, to understand their

specified by the degree programme	<p>interrelations and organizational structure.</p> <p>PR02. 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.</p> <p>PR03. 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.</p> <p>PR04. To be able to substantiate decisions aimed at minimizing environmental risks of economic activity at the national, regional and local levels.</p> <p>PR05. To be able to effectively work in a team and an international team, have leadership skills.</p> <p>PR06. 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.</p> <p>PR07. 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.</p> <p>PR08. 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.</p> <p>PR09. 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.</p> <p>PR10. 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.</p> <p>PR11. 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.</p> <p>PR12. To be able to implement and operate the renewable energy sources and resource-efficient technologies in industrial and social contexts.</p> <p>PR13. To be able to use national and international environmental legislation norms in professional activity.</p> <p>PR14. To be able to design systems and technologies for environmental protection.</p>
<b>8 - Teaching and learning resources</b>	
<b>Teaching Staff</b>	<p>The Department responsible for the Degree Programme is the Department of Urban Environmental Engineering &amp; Management.</p> <p>The Programme Director is Associate Professor, Dr. Tetyana V. Dmytrenko.</p> <p>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.</p>
<b>Material support</b>	<p>The curriculum is supported with multimedia-equipped classrooms, a specialised computer class, 2 specialised study laboratories – the Environmental Monitoring and Applied Ecology ones equipped with</p>

	stationary and portable devices. All university premises satisfy the norms of sanitary and state construction regulations.
<b>Information and curricula resources</b>	<ul style="list-style-type: none"> <li>• Official university web-site (<a href="https://www.kname.edu.ua/">https://www.kname.edu.ua/</a>)</li> <li>• Official department web-site (<a href="https://ecology.kname.edu.ua">https://ecology.kname.edu.ua</a>)</li> <li>• University Library</li> <li>• Electronic data-bases (<a href="https://eprints.kname.edu.ua/">https://eprints.kname.edu.ua/</a>)</li> <li>• Distance-learning portal MOODLE (<a href="http://cdo.kname.edu.ua">http://cdo.kname.edu.ua</a>)</li> <li>• Intramural Internet Wi-Fi access</li> <li>• Subscribed access to publications indexed by the Web of Science and Scopus.</li> </ul>
<b>9 - Academic mobility</b>	
<b>National Credit Mobility</b>	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.
<b>International Credit Mobility</b>	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)
<b>Options for International Students</b>	