

Degree Programme Profile «Urban Ecology», 101 Ecology

1 – General Information	
Full Name of the Higher Education Institution	O. M. Beketov National University of Urban Economy
Degree Title in Original Language	Master in Environmental Studies
Official Title of the Degree Programme	Urban Ecology
Degree Type, Scope and Terms of Study of the Degree Programme	Masters' Degree, singular, 90 ECTS credits, terms of study – 1 years and 4 months
Accreditation Agency	Ministry of Education and Science of Ukraine, Accreditation Certificate УД № 21002008, valid till 01.07.2023
Cycle / Level	The second (Masters') degree NQF of Ukraine – the 7 th level FQ-EHEA – the 2 nd cycle EQF-LLL – the 7 th level
Entrance Requirements	First university degree (bachelors' degree)
Language(s) of Instruction	Ukrainian
Term of Validity of the Degree Programme	5 years
Permanent Internet-link to the Degree Programme Description	https://ecology.kname.edu.ua/index.php/uk/home/osvitni-prohramy
2 – The Aim of the Degree Programme	
	Training high-qualified professionals in governing sustainable development of cities, municipalities and regions, which are capable to develop, apply and promote innovative approaches and evaluate their efficiency in order to assure the normative quality of environment under challenges of global environmental changes and in the context of modern international trends in Environmental Governance
3 – Features of the Degree Programme	
Subject	<p><i>Subject:</i> structure and functions of ecosystems of different origin at different scales; human impacts on the environment and optimization of nature resources use.</p> <p><i>Theoretical content:</i> Terms, concepts and principles of modern natural sciences including ecology and environmental science, their application to environmental protection, natural resources use and sustainable development.</p> <p><i>Methodology and techniques:</i> A student has to master the methodology of data collecting, procession and interpreting the results of environmental research.</p> <p><i>Equipment and tools:</i> equipment, tools and software necessary for the field, laboratory and remote survey and studies of the structure and properties of environmental systems of different origin at different scales.</p>
Orientation of the	Applied Professional Education

Degree Programme	
Main Focus of the Degree Programme	Advanced higher education and professional training in the field of environmental science, environmental protection and sustainable development of cities, municipalities and regions Key words: the urban environment, ecosystems, environmental systems, nature resource management, sustainable development, global changes, environmental risks and hazards, human impacts, climate services, environmental governance
Specific Features	The Degree Programme is realized in the frameworks of the EU's ERASMUS+ Project «Multilevel Local, Nation- and Regionwide Education and Training in Climate Services, Climate Change Adaptation and Mitigation (ClimEd)» (2020–2023, post-project period: 2024–2029).
4 – Employment Opportunities and Further Education of Alumni	
Employment Opportunities	Alumni graduated as Masters in Environmental Protection Technology are able to perform the following jobs according to the State Job Classifier (ДК 003:2010): 1494 Environmental Manager; 1237.1 Principal officer in environmental protection; 1237.2 Head of Environmental Protection Department; 2149.2 Environmental Protection Engineer; 2442.2 Nature Resource Management Officer; 2213.2 Water Resource Engineer; 2213.2 Ecosystem Restoration Engineer; 2211.2 Environmental Expert; 2411.2 Environmental Auditor; 2211.2 Environmental Specialist.
Further Education	Earning the Doctoral (Third Cycle) Degree; further professional post-graduate training
5- Teaching and Evaluation	
Teaching and Learning	Student-centred learning, problem-based learning, illustrations and demonstrations, partially inventive, investigatory and practice-oriented
Evaluation	Credit transfer system accounting for all kinds of curricular and extracurricular activities of students aiming at acquiring the knowledge and skills specified by the degree programme. Interim control during learning semesters: colloquia, written reports from practical training, essays, presentations on individual assignments, tests Final examinations: written exams and credit sessions on specific disciplines, written reports on practical trainings. Attestation: Public defence of Master's thesis.
6 - Program competencies	
Integral Competency	Ability to solve complex specific tasks and address practical challenges in the field of Environmental Science, Environmental Protection and Sustainable Nature Resources Management, either during the study period or during professional life, by carrying out research and/or applying innovative approaches under conditions of complexity and uncertainty.
General Competences (GCs) as defined by the Standard of Higher Education in Environmental Studies	GC01. Ability to learn and master modern knowledges. GC02. Ability to make sound decision. GC03. Creativity (ability to generate new ideas). GC04. Ability to develop and implement environmental projects. GC05. Communication skills in Foreign Language(s). GC06. Ability to search process and analyse information from various sources. GC07. Ability to motivate people towards achievement of common goals.

<p>Specific Competences (SCs) as defined by the Standard of Higher Education in Environmental Studies</p>	<p>SC09. Awareness of modern achievements necessary for research and/or innovation activity in the Environmental Sciences, Environmental Protection and Sustainable Nature Resources Management.</p> <p>SC10. Ability to apply interdisciplinary approaches at critical appraisal of environmental problems.</p> <p>SC11. Ability to apply principles, methods and procedures of investigatory and innovative activities.</p> <p>SC12. Ability to apply novel approaches to analyzing and forecasting complex phenomena, critical thinking in professional activities.</p> <p>SC13. Ability to inform own findings and conclusions to other professionals and wider public.</p> <p>SC14. Ability to manage teams' strategic development during professional activity in the Environmental Sciences, Environmental Protection and Sustainable Nature Resources Management.</p> <p>SC15. Ability to design and carry out activities related to environmental quality assessment, environmental protection and optimization of the nature resources use, under conditions of complexity, uncertainty and information deficiency.</p> <p>SC16. Ability to self-education and further training on the base of innovative approaches in the Environmental Sciences, Environmental Protection and Sustainable Nature Resources Management.</p> <p>SC17. Ability to develop environmental projects independently by applying existing and novel ideas in a creative way.</p> <p>SC18. Ability to assess negative impacts of natural and human origin on the environment and people.</p>
<p>7 - Programme learning outcomes</p>	
<p>Learning outcomes specified by the degree programme</p>	<p>PR01. To know and understand fundamental and applied aspects of environmental studies.</p> <p>PR02. To be able to apply environmental science concepts to professional activity.</p> <p>PR03. To comprehend advanced concepts and achievements of nature resource management, sustainable development and research methodology.</p> <p>PR04. To apply legislative and ethical norms for evaluating professional activities, development and implementation of socially significant environmental projects under contradictory requirements.</p> <p>PR05. To demonstrate ability to organize teamwork on implementation of integrated environmental projects taking into account the available resources and time restrictions.</p> <p>PR06. To comprehend novel techniques and instrumental means of environmental research, including methods of mathematical and GIS modelling.</p> <p>PR07. To be able to communicate in foreign language(s) in scientific, industrial and public spheres of activity.</p> <p>PR08. To be able to communicate professional knowledge, personal experience and conclusions to other professionals and broader public in comprehensive and unambiguous manner.</p> <p>PR09. To comprehend principles of human, material resources and time management, basic approaches to decision making under conditions of uncertainty and contradictions.</p> <p>PR10. To demonstrate awareness towards novel principles and methods of environmental protection.</p> <p>PR11. To be able to use modern information sources in environmental science, nature resources management and environmental protection.</p>

	<p>PR12. To be able to assess landscape and biological diversity and to analyse consequences of anthropogenic impacts on natural environments.</p> <p>PR13. To be able to assess potential impacts from industrial objects and economic activity on the environment.</p> <p>PR14. To apply novel approaches to development of decision-making strategy under complex, unforeseeable conditions.</p> <p>PR15. To evaluate environmental risks and hazards under insufficient information and contradictory conditions.</p> <p>PR16. To choose optimal strategy of economic activities and/or nature resource use depending on environmental conditions.</p> <p>PR17. To appraise critically theories, principles, methods and terms from different fields of knowledge for solving practical tasks and problems in environmental science.</p> <p>PR18. To be able to use modern methodology of information processing and interpreting at innovation activities.</p> <p>PR19. To be capable of planning innovation tasks independently and to formulate conclusions upon performance outcomes.</p> <p>PR20. To be capable of ecological engineering designing and expert evaluation of environmental impacts.</p>
Learning outcomes, specified by the higher education institution	<p>PR21. To be able to propose, develop and implement solutions towards problems of water resources protection.</p> <p>PR22. To be able to plan, develop, propose and implement managerial decisions towards land resource quality.</p> <p>PR23. To be able to forecast and evaluate influence of meteorological parameters on dispersion of emissions in the atmosphere.</p> <p>PR24. To be able to calculate parameters of dispersion of atmospheric pollutant emissions, and to assess air quality.</p>
Teaching and learning resources	
Teaching Staff	<p>Quality training of Masters' students is supported by qualified teaching staff including full Professors, D.Sc, Associate Professors, Ph.D holders, and experienced professionals in environmental protection from climate-sensitive economy branches. All teaching staff have been either visiting lecturers at European universities or invited speakers at conferences and seminars organised by international organisations, in particular, FAO, UNESCO, IAEA, have been participants of international and national research projects, held certificates on sufficient foreign language skills. All teachers possess professional qualifications related to the learning courses they teach, regularly improve their skills and undergo internships at research and higher educational institutions both in Ukraine and abroad.</p>
Material support	<p>The material and technical support of the educational programme meets the licensing requirements for the provision of educational services in the field of higher education and is sufficient to ensure the quality of the educational process and conducting applied research in accordance with the purpose of the educational program.</p> <p>Lectures are delivered at the multimedia-equipped classrooms. All university premises satisfy the norms of sanitary and state construction regulations.</p> <p>Practical classes and independent research work of students are conducted in specialised laboratories (educational laboratory of applied ecology, and laboratory of ecological monitoring) and educational computer classroom with the use of modern information and communication equipment, information systems and current software products.</p>

Information and curricula resources	<ul style="list-style-type: none"> • Official university web-site (https://www.kname.edu.ua/) • University Library's resources including an access to more than 40000 periodicals and 2000 monographs indexed at the Scopus and Web of Science databases • Electronic data-bases SpringerLink, ScienceDirect provided by leading international publishers • Distance-learning portal MOODLE (http://dl.kname.edu.ua) • e-repository • Intramural Internet Wi-Fi access.
Academic mobility	
National Credit Mobility	Students can participate in the national credit mobility programmes at universities providing for bachelors' degree programme in Environmental Studies (101), according to the Guidelines on Academic Mobility of Undergraduate, Graduate and Doctoral Students and Teaching Staff of the O.M. Beketov NUUEK.
International Credit Mobility	Students have a possibility to participate in international academic mobility programmes up to 6 months of studies (up to 30 ECTS credits) under ERASMUS+ KA1 partnerships at the University of Nova Gorica (Republic of Slovenia), the Middle East Technical University (ODTU-METU) (Turkey Republic), Aristotle University of Thessaloniki (Greece), the 'Chernorizets Khraber' Free University of Varna (Bulgaria) and in the frameworks of bilateral educational and research agreements at the Lublin Polytechnics (Poland, agreement No. 70 of 01.04.2016) and the Krakow Polytechnics (Poland, Agreement No. 93 of 2017).
Options for International Students	International students can be enrolled following the Study Admission Rules of the O.M. Beketov NUUEK.