MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

V. N. KARAZIN KHARKIV NATIONAL UNIVERSITY

CONFIRMED

Academic Council of

V. N. Karazin Kharkiv National University

“\_\_\_\_” \_\_\_\_\_\_\_\_\_\_\_\_\_ 20\_\_\_

protocol №\_\_\_

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by order of \_\_\_\_\_ 20\_\_ № \_\_\_\_\_\_\_\_\_\_\_\_

Vice-Rector for Research and Academic Affairs

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (Name, SURNAME)

MICRO-SQUALIFICATION PROGRAM

***Web technologies and information support in the field of conservation***

NATIONAL QUALIFICATIONS FRAMEWORK LEVEL \_\_\_\_\_7\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(5, 6, 7, 8 level)

QUALIFICATION TYPE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_professional\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(educational or professional)

CATEGORY OF QUALIFICATION \_\_\_\_\_\_\_\_\_\_\_microqualification\_\_\_\_\_\_\_\_\_\_\_\_

(partial qualification or micro-qualification)

QUALIFICATION Specialist in Digitalization and Information Resource\_\_\_\_\_\_\_\_\_

Management in Conservation \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(title of qualification)

**Kharkiv 2026**

**Profile of the program**

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| **1. General information** | | |
| **Head of the program** | | 1. Anastasiia Klieshch, PhD in Geography, Associate professor of the Department of Environmental Monitoring and Protected Areas Management. |
| **Members of the program development working group** | | 1. Nadiya Maksymenko, Doctor of Geography, Professor, Head of the Department of Environmental Monitoring and Protected Areas Management. 2. Alla Shumilova, PhD in Geography, Head of the Research and Development Department at Slobozhanskyi National Nature Park. |
| **Full name of the higher education institution and structural unit where the program is implemented** | | V. N. Karazin Kharkiv National University, Institute of Environmental Sciences, Green Energy, and Sustainable Development, Department of Environmental Monitoring and Protected Areas Management. |
| **National Qualifications Framework Level** | | 7 (NQF Ukraine), Second cycle (QF-EHEA),  7 (EQF-LLL) |
| **Official name of the program** | | Web technologies and information support in the field of conservation |
| **Type of document issued and scope of the program in ECTS credits and academic hours** | | Certificate  3 ECTS, 90 hours |
| **Language(s) of teaching /assessment** | | Ukrainian / Ukrainian |
| **2. Program goal** | | |
| *The objective of the educational program is to develop a comprehensive system of knowledge and practical skills among higher education students and environmental professionals in the application of modern web-technologies and digital tools for nature conservation activities. The program is designed to facilitate the digital transformation of protected area institutions by implementing web-based tools for branding and service marketing. This approach fosters the development of a positive institutional image, ensures effective positioning within the recreation market, and promotes sustainable communication with key stakeholders.* | | |
| **3. Characteristics of the program** | | |
| **Orientation, features and objectives of the program** | | *The educational program has a distinct practice-oriented focus, focusing on the digital transformation of environmental management. A defining feature of the program is the integration of web-service development skills with geoinformation technologies (GIS) to represent ecological information and environmental data online.*  *The program's objective is to train professionals capable of implementing innovative digital tools to enhance the institutional transparency of protected area management, effectively promote services, and attract investment to support conservation sites. The program provides for international participation in the development and teaching of the Erasmus+ project «DOMANI – Developing Micro-credentials Ecosystems in Ukraine and Mongolia for Competitive and Resilient Green Economies».* |
| **The main focus of the program** | | *Scientific and applied substantiation of the digital transformation of protected area management, based on the development of interactive websites and web-platforms, the implementation of GIS solutions for environmental monitoring, and web-marketing of recreational services and ecotourism within the context of sustainable development and the "green" economy.*  *Key words: digitalization of conservation, web technologies, eco-content, eco-education, digital marketing of ecotourism, institutional transparency.* |
| **4. Teaching and assessment** | | |
| **Teaching and learning** | | *Core Teaching Approaches: Student-centered, practice-oriented (learning by doing), and value-based; blended learning, which combines remote sessions, e-learning on specialized platforms, and independent work with digital resources.*  *Educational Technologies: Project-based learning (development of individual or group cases), information and communication technologies (utilization of cloud services and virtual laboratories), problem-solving and inquiry-based learning (analysis of real-world digitalization challenges in conservation institutions and searching for optimal GIS solutions), and interactive technologies (online simulations of digital communication management).* |
| **Assessment** | | *A 100-point grading system is applied through a cumulative point-based assessment, including the following types of control: continuous assessment (written quizzes and surveys), intermediate control (defense of practical and independent assignments, participation in group discussion, and mid-term tests), final assessment (standardized testing).* |
| **5. Program competencies or job functions** | | |
| **General competencies** | GC 3. Ability to generate new ideas (creativity).  GC 6. Ability to search, process, and analyze information from various sources and visualize data. | |
| **Professional competencies** | PC 3. Ability to apply principles, methods, and organizational procedures of research and innovation activities.  PC 5. Ability to communicate knowledge and personal conclusions to both specialists and non-specialists.  PC 9. Ability to independently initiate, design, and implement environmental projects. | |
| **DOMANI - competencies** | DC 1. Ability to digitally represent environmental information.  DC 2. Ability to implement web tools for sustainable management of natural capital within protected areas.  DC 3. Ability to conduct strategic digital marketing within the nature conservation sector. | |
| **6. Program learning outcomes** | | |
| **Program learning outcomes** | PLO 6. To know modern methods and instrumental tools for environmental research, including methods and tools for mathematical and geographic information (GIS) modeling.  PLO 8. Ability to communicate professional knowledge and conclusions clearly and unambiguously to both specialists and the general public.  PLO 11. Ability to utilize modern information resources related to ecology and environmental protection. | |
| **DOMANI - Program Learning Outcomes** | DPLO 1. Ability to create and optimize digital ecosystems (websites, geoportals) to represent the potential of protected areas within the framework of a "green" economy.  DPLO 2. Ability to apply digital branding tools to enhance the investment attractiveness of protected areas and engage international stakeholders. | |
| **7. Resource provision for program implementation** | | |
| **Human resources** | Lecturers hold advanced academic degrees and/or titles, including Doctors of Science, Candidates of Geographical Sciences (PhD), and Doctors of Philosophy (PhD). All teaching staff are full-time employees of V. N. Karazin Kharkiv National University and regularly undergo professional development related to the program's subject matter. Professionals from specialized protected area institutions may also be involved in the educational process. | |
| **Material and technical support** | The program is supported by equipment and facilities necessary for laboratory and field research, as well as educational hardware (multimedia projectors, laptops, printers, scanners, and personal computers with specialized software) required to build subject-specific competencies during the learning process. | |
| **Information and educational and methodological support** | Information regarding the micro-credential program is available on the official websites of V. N. Karazin Kharkiv National University (<https://karazin.ua/>), the Karazin Digital Learning Support Center (<http://moodle.karazin.ua>), and the Institute of Environmental Sciences, Green Energy, and Sustainable Development (<http://ecology.karazin.ua>). | |

1. **List of program components**

|  |  |  |  |
| --- | --- | --- | --- |
| **Course/ Code** | **Program Components (сourses, topics, assignments, practical component, assessment)** | **Number of ECTS Credits** **/ Hours** | **Type of Control** |
| EC. 1 | Web Technologies and Digital Representation of Nature Conservation | 1/30 | Test |
| EC. 2 | Environmental Geoinformation Services and Interactive Web Applications | 0,5/15 | Test |
| EC. 3 | Information Support and Web Marketing for Protected Area Services | 0,5/15 | Test |
| PС. 1 | *Practical Component* | 1/30 | Pass/Fail with Grade |
| FА. 1 | *Final Assessment Exam* |  | Test |
| **TOTAL PROGRAMME VOLUME: 3/90** | | | |

1. **Form of attestation according to the program**

The final assessment is conducted in the form of a final exam consisting of a comprehensive test, which includes both theoretical and practical questions.

1. **Program verification**

Head of the program \_\_\_\_\_\_\_\_\_\_\_\_\_ Anastasiia KLIESHCH

(signature) (Name, SURNAME)

Considered at the department meeting \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

from «\_\_\_» \_\_\_\_\_\_ 20\_\_ , protocol № \_\_\_

Head of the Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Nadiya MASKYMENKO

(signature) (Name, SURNAME)

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