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| Educational program | 7М01505 Biology |
| EP purpose | Training of biological specialists, with in-depth theoretical and practical individual training in various areas of biology, competitive in the labor market, in demand by modern educational institutions, able to effectively adapt to dynamically changing social and professional working conditions |
| EP type | Acting |
| Level on NQF | 7 |
| Level on SQF | 7 |
| The awarded academic degree | Master |
| Period of study | 2 |
| Volume of the credits | 120 |
| Language of education | Kazakh, Russian, English |
| Date of approval of the OP at the Board meeting | 10.04.2024 |
| Professional standard | Teacher 15.12.2022, Professional standard: Teacher (faculty) of higher and (or) postgraduate education organizations 20.11.2023 |

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| № | Learning outcomes: |
| 1 | Apply knowledge of a foreign language to the extent necessary to obtain professional information from foreign sources and communicate at a professional level, business and professional vocabulary of a foreign language to the extent necessary for communication, reading and translation of foreign language texts of general and professional orientation. |
| 2 | To integrate the laws of development of management psychology; functional mechanisms of management and psychological methods of management, psychological aspects of making managerial decisions. |
| 3 | Design and implement complex research, including interdisciplinary, based on a holistic systemic worldview using knowledge in the field of history and philosophy of science. |
| 4 | Use the methods of scientific analysis, forecasting, planning and management of the pedagogical process, the skills of conducting the experiment; research planning; registration of reports; analysis of research results. |
| 5 | To master the methods of teaching biology at the university, the use of innovative teaching methods and assessment technologies in the educational process, the management of the educational process in the modernization and digitalization of Kazakhstani society. |
| 6 | Interpret methods of cultivation of microorganisms; methods of sampling for microbiological analysis, microbiological control of biotechnological industries, methods for preparing samples for microbiological research, knowledge of the modern problem of molecular biology, mechanisms of hereditary variability and selection |
| 7 | To generalize knowledge about the flora and fauna of deserts and steppes, methods of protection and conservation of biodiversity, mechanisms of adaptation of the organism to environmental stress factors, analyzes and evaluates the physiological mechanisms of the endocrine system. |
| 8 | To carry out a comparative characteristic of the anatomical, morphological and physiological characteristics of vertebrates, the degree of increase in their organization, phylogenetic relationships between them. |
| 9 | Analyze the structure (morphology) and structure (anatomy) of a plant, age-related and seasonal changes in the life of flowering plants, knows how to classify them depending on the habitat; possess the skills of preparing temporary anatomical preparations for the purpose of their microscopic and structural-functional research. |
| 10 | To assess the mechanisms of the endocrine system and humoral regulation of the body, types of environmental factors, adaptation processes of the body to stressful environmental factors. |