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| Educational program | 8D01503 Biology |
| EP purpose  |  Тraining of competitive personnel with pedagogical and professional and scientific competencies and skills for their implementation in practical and scientific activities with the award of the degree of doctor of philosophy (PhD) to meet the needs of science, education in the field of biology. |
| EP type |  New  |
| Level on NQF | 8 |
| Level on SQF | 8 |
| The awarded academic degree | Doctorate |
| Period of study | 3 |
| Volume of the credits | 180 |
| Language of education | Kazakh, Russian, English |
| Date of approval of the OP at the Board meeting | 06.04.2022 (protocol No. 10) |
| Professional standard | Pedagogue  |

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| № |  Learning outcomes: |
| 1 | Demonstrate a systematic understanding in the field of biotechnology study of the conservation of biological resources and the rational use and conservation of biological resources. |
| 2 | Interpret the methods of biological research, analyze the experimental data obtained in the formulation of the experiment by means of mathematical calculations using various programs. |
| 3 | Analyze the mechanisms of physiological and biochemical processes in living organisms, their course and regulation at all structural levels of the organization. |
| 4 | Critically analyze modern scientific achievements, master the methodology of research activities, present the results of their research in the form of publications and reports in an academic, expert and professional environment using appropriate communication means. |
| 5 | To assess the physiological state of organs and organ systems of an animal organism and the evolution of organ systems. |
| 6 | To develop an educational and medical complex using innovative technologies for teaching biology. |
| 7 | Implement a comprehensive process of scientific research in the direction of scientific and educational biology. |
| 8 | Contribute with your own original research to expand the boundaries of the scientific field of biology on the topic of research. |