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| Educational program | 6В01503 Physics |
| EP purpose | On the basis of the national education model, to provide training for highly qualified specialists in the educational program 6B01503 – Physics, equipped with in-depth knowledge in the field of their specialty, skills and abilities of pedagogical activity, as well as possessing high culture and morality. |
| EP type | Acting EP |
| Level on NQF | 6 |
| Level on SQF | 6 |
| The awarded academic degree | Bachelor |
| Period of study | 4 |
| Volume of the credits | 240 |
| 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 |

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| № | Educational outcome |

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| 1 | Have the ability to evaluate and apply research methods and innovative approaches to understanding public socially significant phenomena and processes in the legal, economic, entrepreneurial, industrial, environmental environment and anti-corruption policy |
| 2 | To design educational work that develops the emotional and value sphere of the student on the basis of national culture |
| 3 | To predict, plan and manage the educational process in terms of the updated content of secondary education, taking into account the physiological and functional characteristics of the development processes, individual educational needs of pupils and students |
| 4 | Explains physical phenomena, uses basic theoretical knowledge of the fundamental sections of General and theoretical physics, astronomy to solve professional problems, assesses knowledge of the laws and their application; the results of observations and experiments; the applicability of methods of scientific knowledge in specific cases; the consequences of household and industrial human activities related to physical processes, from the standpoint of environmental safety |
| 5 | Has the skills of free communication in different language and cultural environments, applies the knowledge of theoretical and experimental foundations of physics, computer technologies, technologies of teaching physics in a foreign language, applies the methods of scientific research and academic writing, understands the importance of academic ethics and the principles of academic integrity |
| 6 | Applies new approaches in teaching and educating students (personality-oriented, competence-based, interactive, collaborative), methods of differentiation, systems of criteria-based assessment, digital technologies, knows the methodology of organizing the educational process using remote educational technologies |
| 7 | Applies modern methods of managing the project activities of students in the educational environment, knows the methods of conducting scientific research in the field of physics and its applications, teaching methods, using modern information and pedagogical teaching technologies; analyzes the principles of operation and characteristics of devices and devices, the scope of scientific discoveries, the application of nanotechnology, as well as parameters that characterize the state of the Universe and possible ways of its developmentent |
| 8 | Creates mathematical models of typical professional tasks and interprets the results taking into account the limits of applicability of models, uses in professional activity the basic knowledge of the fundamental sections of mathematics |
| 9 | Analyzes the results of theoretical and experimental results of solving practical problems and assesses their reliability, organizes and puts a physical experiment (laboratory, demonstration, computer) |
| 10 | Independently plans experimental work, organizes research, conducts it correctly, skillfully processes the data obtained using the apparatus of mathematical statistics, synthesizes the collected and processed data, information for presentation in the form of a report, presentation, scientific model and evidence for hypotheses, arguments and explanations |