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| Educational program | 6В01502 Mathematics-Informatics |
| EP purpose  | Training of bachelor's degree with professional competencies in the field of modern pedagogy, theory and methodology of teaching mathematics and computer science, knowing modern information technologies, capable of applying theoretical and practical knowledge to identify and solve research problems in the field of education |
| EP type | New |
| 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 | 06.04.2022 (protocol No. 10) |
| Professional standard | Pedagogue |

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| № |  Learning outcomes: |
| 1 | Takes an active civil position in interpersonal and intercultural communication in a multilingual environment on the basis of fundamental knowledge and skills in the field of social, political, cultural, psychological sciences in the context of their role in the modernization and digitalization of Kazakhstan's society; |
| 2 | To possess the ability to evaluate and apply research methods and innovative approaches in analyzing socially significant phenomena and processes in the legal, economic, industrial, environmental and anti-corruption policy. |
| 3 | Able to predict, plan and manage the educational process in terms of the updated content of secondary education, taking into account the physiological and functional features of the development processes, the individual educational needs of pupils and students; |
| 4 | Demonstrates knowledge and understanding of the classical sections of mathematics, is proficient in the methods of mathematical reasoning, mathematical terminology, methods for solving typical problems at the professional level; |
| 5 | Analyzes and synthesizes observable facts and phenomena by mathematical methods, demonstrates knowledge and understanding of fundamental mathematical concepts, and is able to use the theoretical foundations of classical and modern physics in practice. |
| 6 | Analyze and synthesize the principles of interaction between software and hardware, know the basics of computer hardware, its main technical characteristics and functionality, navigate modern trends in the development of hardware and software. |
| 7 | Use the main programming technologies and STEAM technologies, be able to solve problems using various methods of developing algorithms and choose the most appropriate algorithms and means of their implementation, depending on the problem statement, master the methods and tools for developing programs, be able to use a DBMS to manage the creation and use of databases data. |
| 8 | Develops models for constructing mathematical education, principles, methods and technologies for teaching mathematics and informatics. He owns a technique for solving various problems, performs intra-subject and interdisciplinary communication in school work, is able to carry out logical reasoning, substantiated arguments and correctly represent mathematical knowledge in oral and written forms in a multilingual environment. |
| 9 | Evaluates the features of the updated content of education, inclusive education, uses the technology of criteria-based assessment of the expected results of students, applies the strategies of the updated content of education in future professional activities |