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| Educational program | 6В06103 Architecture of information systems |
| EP purpose  | Тraining of qualified personnel in the field of information system architecture who possess modern methods of designing the structure of information systems in order to optimize their use for solving applied problems |
| 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 |  System and Network administration |

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| № |  Learning outcomes: |
| 1 | To show an active civic position in interpersonal and intercultural communication in a multilingual environment based on 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 Kazakh society. |
| 2 | Have the ability to evaluate and apply innovative approaches to understanding socially significant social phenomena and processes in the legal, entrepreneurial, industrial, environmental environment. |
| 3 | To speak Kazakh, Russian, foreign languages, using a variety of means of oral and written communication to solve professional problems. |
| 4 | Builds mathematical and physical models, sets mathematical and physical tasks, conducts qualitative mathematical and physical research, based on the analysis, develops practical recommendations for technical tasks of information systems. |
| 5 | To master the aspects of human-machine interaction and methods of development, evaluation and implementation of interactive computer systems and digital electronic devices intended for human use, as well as to study various aspects of this use. |
| 6 | Apply the basics of the development of specifications of software complexes, standard methods of design of algorithms and basic techniques of their design; own programming tools and environment, modern programming technologies. |
| 7 | Apply knowledge in the field of information systems architecture to create and design cybernetic, intelligent robotic, information systems, networks and complexes for industrial and research purposes. |
| 8 | Apply professional knowledge in the field of computer science, information technology, information security and data protection for the organization and creation of conditions for the optimal use of computer technology, software in solving applied problems. |
| 9 | To use various types of information and communication technologies in professional activity: Internet resources, cloud and mobile services for the search, storage, processing, protection and dissemination of information. |
| 10 | To investigate the infrastructure of the enterprise and defines information data flows, data exchange processes, through modeling; describes the functional characteristics and capabilities of the IP; principles of operation and application of best practices of ICT technologies and maintenance of information systems. |
| 11 | Analyze their own and foreign experience in the development and implementation of information systems, interacts with experts in other subject areas in the design and development of information systems. |
| 12 | Design information models, uses modern DBMS for building, managing and applying databases; documents the processes of creating information systems at all stages of the life cycle, identifies information needs of users, forms requirements for the information system, participates in the reengineering of applied and information processes. |