EDUCATIONAL PROGRAMME PASPORT

- **6B01509 – Informatics and Robotics**

AIM OF THE EDUCATIONAL PROGRAMME	Training of a competitive teacher of informatics, who owns the basic technologies for creating educational robots and who have high social and civic responsibility, who are able to carry out professional activities: digitalization of education; organization of training in informatics and ICT at the modern scientific and methodological level; education of the student's personality and the formation of systematized knowledge in the field of informatics using content and language integrated learning.
AREA OF PROFESSIONAL ACTIVITY	**Educational:** broadcasts educational information, teaches how to independently acquire knowledge; **Upbringing:** introduces students to the system of social values; **Methodical:** provides methodological support for the educational process; **Research:** studies the level of mastering by students of the content of education, explores the educational environment; **Social and communicative:** interacts with the professional community and with all stakeholders in education.

LEARNING OUTCOMES (LO)	**LO1 – understands theoretical foundations and methodological approaches of the modern history of Kazakhstan and philosophy, independently analyze economic data and processes, the main modern historical events of the social and economic, political and cultural development of the Republic of Kazakhstan at the present stage and plan his future, understanding and observing the principles and supporting the culture of academic honesty;**

LEARNING OUTCOMES (LO)	**LO2 – uses the studied language to solve the problems of interpersonal and intercultural interaction, owns the method of critical analysis and uses information technologies in independent studying of the state, Russian and foreign languages and the principles of the approach of content and language integrated learning; LO3 – applies applied methods of research and academic writing, mathematical knowledge and methods for solving practice-oriented problems, analyzing numerical data; possesses a set of basic skills of independent problem solving in the field of mathematical foundations of computer calculations;**

LEARNING OUTCOMES (LO)	**LO4 – solves standard tasks of professional activity using digital technologies, interactive applications (network, mobile, cloud), taking into account the requirements of information security, has the skills to independently continue further education;** **LO5 – critically analyzes patterns and creates on their basis computer models of information, physical, biological and economic objects and processes, for their visualization and conducting research work;**

LEARNING OUTCOMES (LO)	**LO6 – has a general idea of the new direction in the science of mechatronics, the basic principles of using electronics, methods for designing mechanical structures of robots, principles and special programming languages for robotic systems;** **LO7 – owns the history and trends in the development of computer technology, architecture of computer systems, principles of construction and operation of computer networks and systems, applies the main methods of data design and database development, modern means of assessing learning outcomes, especially teaching informatics and ICT in the updated content of education. Applies methods related to research and project activities of students, and other innovative teaching methods;**

LEARNING OUTCOMES (LO)	**LO8 – works in instrumental environments of basic programming languages; uses professionally oriented software tools and integrated environments for the development of web and mobile applications; builds information and computer models of objects, phenomena, systems, including 3D;** **LO9 – analyzes the strengths of scientific communication, critically evaluates the current state of knowledge and experience, develops, implements and improves a plan for acquiring new knowledge and skills for specific professional goals; works in collaboration with colleagues to improve the learning process of informatics.**