## Objectives and learning outcomes of the undergraduate program

Purpose of the EP	Learning outcomes
To train highly qualified, multilingual specialists with critical thinking, ready for professional work in digitation of various sectors of the economy, possessing advanced knowledge in the field of IT-technologies	LO1 Communicate freely in the professional environment and society in Kazakh, Russian and English, taking into account the principles of academic writing and the culture of academic honesty
	LO2 Apply natural science, mathematical, social, socio- economic and engineering knowledge in professional activities, methods of mathematical data processing, theoretical and experimental research, regulatory documents and elements of economic analysis.
	LO3 To develop, test, implement and maintain all types of ICT project support in accordance with standards.
	LO4 Describe and practically apply three-dimensional and interactive computer and illustrative graphics; web design; Smart technologies (on the example, "Smart Home");
	LO5 Program in environments: C++ - for resource-intensive technologies and solving problems on devices with minimal performance; Python - in data analysis, machine learning, DevOps and WEB development; Java, PHP - in the development of interactive products for the Internet; iOS, Android, WP, Tisen - when developing mobile applications.
	LO6 Describe the basic principles of information security in IS, recommend how to practically implement the technical protection of information in the design and implementation of information processes on various devices;
	LO7 To install and configure the software and ensure the operation of the database; ensure the information security of the database;
	LO8 Apply mathematical apparatus in solving problems using artificial intelligence; in computer modeling, including simulation models; in designing economic IS and for processing statistical data;
	LO9 Manage the functioning of the organization's IT infrastructure; ensure the regular operation and security of the OS, SOS and DBMS; apply and configure the 1C: Enterprise software product to automate accounting and

management accounting of the enterprise;
LO10 Analyze and process big data using Big Data and Data Mining technologies.
LO11 Lead a healthy lifestyle, apply the ability of self-learning and self-education throughout life.
LO12 To be able to work effectively individually and as a member of a team, correctly defend their point of view, correct their actions.