6B07152 Engineering of electric power systems

**PASSPORT of the EP**

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| Name of the EP | 6B07152 Engineering of electric power systems |
| Code and Classification of Education | 6В07 Engineering, Manufacturing and Civil Engineering |
| Code and Classification of Areas of Training | 6В071 Engineering and Engineering Trades |
| Group of educational programs (EP) | В062 Electrical Engineering and Energy |
| Language learning | Kazakh, Russian, English |
| The complexity of EP | 240 credits |
| Distinctive features of EP | - |
| Partner University (JEP) - | - |
| Purpose of the EP | Preparation of highly qualified, competitive in the labor market specialists in the field of power supply, capable of self-development and the implementation of core activities according to the qualifications of a bachelor of engineering and technology |
| Name of the degree awarded | «Bachelor of Engineering and Technology» |
| Field of professional activity | The sphere of professional activity is the field of science and technology, which includes a set of technologies, means, methods and methods of human activity aimed at creating conditions for the conversion of electrical energy and process control. |
| Learning out comes | LO1 Communicate freely in the professional environment and society in Kazakh, Russian and English with an understanding of the principles and culture of academic integrity;  LO2 Modernize power supply facilities, perform diagnostic and repair activities of electrical equipment, according to methods, techniques and modern means of measurement and information technology;  LO3 Substantiate technical, economic, environmental criteria for evaluating electric power complexes and systems during their creation and operation, and develop measures to improve the efficiency of energy consumption, use of energy resources and reduction of energy losses;  LO4 Create theoretical models to analyze and predict the properties and processes of power supply facilities, using techniques to conduct installation, adjustment, operation, and testing of electrical equipment;  LO5 Design electrical equipment and power supply systems based on trends in science and technology;  LO6 Optimize power systems by leveraging the digitalization trends of smart power systems;  LO7 Demonstrate skills in self-education, self-improvement, healthy living, and teamwork.  LO8 Apply information and computational literacy, setting a goal and choosing how to achieve it;  LO9 Utilize research, entrepreneurial and uncertainty management skills;  LO10 Based on the methods of mathematical data processing, scientific and experimental research, normative documents and elements of economic analysis demonstrate natural scientific, mathematical, social, socio-economic and engineering knowledge in professional activities;  LO11 Describe processes in electrical machines, converter devices and power supply systems, applying modern methods of calculating electrical circuits, electromagnetic processes and electrical properties of materials; |