7M07150 Electrical power engineering

**PASSPORT of the EP**

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| Nameofthe EP | 7M07150 Electrical power engineering  |
| Code and Classification of Education | 7M07 Engineering, Manufacturing and Civil engineering |
| Code and Classification of Areas of Training | 7M071 Engineering and Engineering Trades  |
| Group of educational programs (EP) | М099 Energy and Electrical Engineering |
| Languagelearning | Kazakh, Russian |
| The complexity of EP | 120 credits |
| Distinctivefeaturesof EP | - |
| PartnerUniversity (JEP) - | - |
| Purpose of the EP  | Providing comprehensive and high-quality training of qualified, competitive specialists in the field of electric power industry, based on a combination of modern educational technologies, knowledge, accumulated experience, corporate intelligence and moral potential |
| Name of the degree awarded | Master of technical science |
| Fieldofprofessionalactivity | - project;- organizational and administrative- research;- pedagogical |
| **Purpose of the EP**Providing comprehensive and high-quality training of qualified, competitive specialists in the field of electric power industry, based on a combination of modern educational technologies, knowledge, accumulated experience, corporate intelligence and moral potential | **LO1**Be a competent mediator between languages and cultures, in interpersonal communication, to obtain professional information from scientific sources, writing scientific articles.**LO2** Have the ability to analyze the main ideological and methodological problems, including interdisciplinary ones, arising in science and technology at the present stage of their development in the field of electric power, evaluate various facts and phenomena based on the provisions and categories of the philosophy of science.**LO3** Apply mathematical modeling methods, conduct experimental studies and analyze their results, solve problems related to the development of innovative methods that increase the efficiency of operation and design of systems and facilities of the electric power industry.**LO4** Demonstrate up-to-date knowledge on the integration of traditional and renewable energy into an intelligent energy system through the use of digital and information technologies in operational management.**LO5** To develop an educational and methodological complex of disciplines, critically evaluate the scientific organization of the work of a higher school teacher, analyze the nature of pedagogical phenomena, use innovative methods of pedagogy and psychology to activate the educational process using modern information technologies.**LO6** To use research, entrepreneurial skills and skills of working in conditions of uncertainty, to systematize methods of scientific research in the processes of generation, transmission and distribution of electric energy for their use in specific situations, to be able to assess the technical and economic efficiency of decisions.**LO7** Demonstrate developing knowledge and understanding in the field of electromechanical and electrotechnical devices of autonomous facilities, agricultural power supply systems based on modeling of processes occurring during the production, transmission and consumption of electric energy.**LO8** Apply at a professional level their knowledge, understanding and abilities to solve the problems of energy and resource conservation in the management, operation, design of installations based on renewable energy sources. |