

# **DESCRIPTION OF THE EDUCATIONAL AND PROFESSIONAL PROGRAM**

**Field of knowledge 14 – "Electrical engineering"**

**Specialty 142 – "Energy Engineering"**

**Educational program – "Refrigerating machines and installations"**

**(first (bachelor) level of higher education)**

Educational qualification "Bachelor of Power Engineering"

**Form of education:** full-time

**Availability of accreditation.** Ministry of Education and Science of Ukraine  
Accreditation certificate: UD series No. 15002990  
The certificate is valid until July 1, 2025.

The educational program of the first (bachelor) level of higher education, specialty 142 "Energy engineering" is aimed at studying the processes occurring in power plants (refrigerating machines and plants, air conditioning and life support systems, heat pumps, heat engines, heat exchange and technological devices, compressors, pumping equipment).

The purpose of the educational program is to train a highly qualified, competitive specialist to solve complex specialized tasks and practical problems in the field of power engineering, the formation and development of general and professional competences in the field of electrical engineering, which make it possible to master the basics of design, operation and maintenance of objects and systems of the energy complex, to introduce energy-efficient and energy-saving technologies in industry, transport (land, sea and river, aviation) and agricultural sectors of the economy.

Tasks of the educational program:

- professionals capable training of solving complex general, specialized tasks and practical problems in the field of power engineering or in the learning process, which involves the application of theories and methods of electrical engineering and is characterized by the complexity and uncertainty of conditions;
- special sections study of thermodynamics, theory of heat and mass transfer, hydrogas dynamics, theory of reliability, transformation (transformation) of energy, technical mechanics;
- study of methods and ways of obtaining, transmitting and efficient use of energy, technologies for organizing production processes and their quality control, methods of modeling and data processing in the calculation, design, adjustment and operation of activity facilities;
- formation of the ability to analyze information from literary sources, to carry out patent searches, as well as to use databases and other sources of information to carry out professional activities.