EDUCATIONAL AND PROFESSIONAL PROGRAM DESCRIPTION

Branch of knowledge 14 – Electrical engineering

Specialty 144 – Thermal power engineering

Educational program – Thermal power engineering

(first (bachelor) level of higher education)

Educational qualification "Bachelor of Thermal power engineering"

Availability of accreditation. Absent.

The educational program is aimed at studying the processes taking place in power plants (turbines, boilers, steam generators, nuclear reactors, pumping equipment, compressors, heat engines, heat exchangers and technological devices); heat energy equipment of thermal, nuclear power plants and industrial enterprises; steam and water boilers; heat engines; heat and mass exchange devices; coolants and working bodies; energy accounting systems and parameters of energy carriers; systems of regulation and automation of thermal power facilities.

The purpose of the educational program is the training of a highly qualified, competitive specialist, 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 thermal power complex, to introduce energy-efficient and energy-saving technologies in industry, transport (land, sea and river, aviation) and agrarian sectors of the economy.

Tasks of the educational program:

- training of specialists with skills in modern information technologies, computer graphics tools, mathematical methods and models for solving engineering tasks in the thermal power engineering;
- formation of the ability to identify, formulate and solve engineering tasks in thermal power engineering; understand the importance of non-technical constraints;
- acquisition of practical skills for solving complex tasks and practical problems involving the implementation of engineering projects and conducting research according to specialization;
- formation of the ability to develop and design complex products in the thermal power engineering, processes and systems that satisfy the established requirements, which may include awareness of technical and non-technical aspects;
- training of specialists capable of developing rational heat exchange equipment projects; to evaluate the efficiency of using various types of secondary energy resources and non-traditional energy sources.