Postgraduate degree program: 08.06.01. Engineering and Construction Technology

Duration: on-campus - 4 years/off-campus -5 years

As a postgraduate, you will be able to deal with the following subjects of professional activity as follows:

- the development of the scientific foundations of engineering surveys, design, construction, reconstruction and operation of buildings, structures and objects of transport infrastructure;
- the creation and improvement of rational types of structures, buildings, and complexes for various purposes as well as the development, improvement and verification of their calculation justification methods;
- the improvement and development of existing and new machines, equipment and technologies necessary for the construction and production of building materials, products and structures;
- the improvement and development of new building materials;
- the improvement and development of new technologies for the construction, reconstruction, demolition and disposal of buildings and structures;
- the development and improvement of test methods and monitoring of the condition of buildings and structures;
- the improvement and development of the methods to increase the reliability and safety of construction sites;
- the improvement of engineering systems and equipment of construction sites, transport infrastructure facilities as well as urban areas;
- the solution of scientific problems, tasks in the corresponding construction industry, which have important socio-economic or economic importance;
- the updating and improving the regulatory framework of the construction industry in the field of design, construction, operation and reconstruction, demolition and disposal of construction sites;
- the development of the methods for improving the energy efficiency of construction production and public utilities;
- the conducting educational and teaching work in educational institutions of higher education.

The courses of the program will provide you, as a postgraduate student, with a solid foundation in gaining familiarity with a range of common problems and objects of professional activity as follows:

- building constructions, buildings, constructions and their complexes, including hydraulic engineering, nature protection constructions and objects of transport infrastructure;
- loads and impacts on buildings and structures;
- heating, ventilation, air conditioning, gas and electricity systems of buildings and structures;
- building materials and products;
- water supply, sewage and wastewater treatment systems;

- machines, equipment, technological complexes, automation systems used in construction;
- cities, settlements, land and architectural objects;
- natural environment surrounding and enclosing construction sites.

As a postgraduate, you will be able to:

- carry out scientific research in the field of technical sciences and architecture;
- teach according to educational programs of higher education.

The program covers the following focuses of the training:

- Heat supply, ventilation, air conditioning, gas supply and lighting
- Water supply, sewerage, construction of water resources protection system;
- Building materials and products;
- Technology and organization of construction.