

Profile of the Education Program

General information	
Official name of the education program	Industrial and Civil Construction
Speciality	192 – Construction and Civil Engineering
Field of study	19 – Architecture and Construction
Degree of higher education and name of qualification in original language	Bachelor, Bachelor of Construction
Type of diploma and scope of education program	Bachelor’s degree, unitary, 180 ECTS credits, study duration 2 years 10 months
Accreditation	Ministry of Education and Science of Ukraine, Accreditation Certificate UD 21008299 valid until 01.07.28
Cycle / level	First (Bachelor) cycle degree NQF of Ukraine - level 7 FQ-EHEA – first cycle EQF-LLL – level 6
Academic admission requirements	Full general secondary education
Language(s) of instruction	Ukrainian, English
Duration of the education program	5 years
Education program objective	
To provide training of highly qualified specialists in the field of construction and design of structures, capable to solve complex problems, to carry out original independent scientific researches and to carry out scientific and pedagogical activity.	
Education program specifications	
Subject area	<p>Objects of study: processes of designing, creation, operation, storage and reconstruction of construction sites, engineering systems and technological processes.</p> <p>Learning objectives: training of specialists for the design and construction of buildings, engineering structures and systems, construction of structures, operation and reconstruction of construction sites.</p> <p>Theoretical content of the subject area: theoretical foundations of building technologies, theories, principles, concepts and methods of fundamental and general engineering sciences.</p> <p>Methods, techniques and technologies: methods of physical and mathematical modeling, design techniques, technologies of construction of construction objects and engineering systems, technologies of manufacturing structures and materials.</p> <p>Tools and equipment: construction machines, appliances and equipment, geodetic instruments, air-conditioning equipment, control and measuring devices, necessary for the functioning of engineering systems, technological equipment for the manufacture of structures and products, tools for technological, information, instrumental, metrological, diagnostic and organizational support of construction .</p>
Orientation of the education program	Educational and professional

The main of the education program and specialization	Special education in “Architecture and Construction” Key words: reinforced concrete structures, metal structures, wooden structures, foundations and foundations, construction production technology, construction machinery, building materials, reconstruction of buildings and structures
Program features	
Graduate employability and further academic studies	
Employability	<p>Graduate with a bachelor's degree in construction is able to perform the following professional work (by DK 003: 2010):</p> <p>1223.2 – Heads (other heads) and foremen of divisions (units) in construction</p> <ul style="list-style-type: none"> - work performer - Foreman of construction and installation works - 1491 – Managers of housing and communal services <p>2142.2 – Civil Engineers</p> <ul style="list-style-type: none"> - Construction Supervisor - Design and estimate engineer - Constructing engineer - Construction engineer for the restoration of architectural monuments and town planning - Design engineer (Civil Engineering) - Technologist (Building Materials) <p>2149.2 – Safety Engineer</p> <p>3112 – construction technician:</p> <ul style="list-style-type: none"> - Structure warden - Cost consultant - Architectural design technician - Technician of sanitary engineering systems - Construction technician - Construction technician (road construction) - Technician-designer (construction) - Caregiver - Laboratory technician (construction) - Designer technician - Heat technician (construction) - Technologist (production of construction products and structures) - 3118 – Drawers - Technical Designer - Designer chair <p>3119 – Other technical specialists in the field of physical sciences and engineering</p> <ul style="list-style-type: none"> - Instructor on operational, production, technical and organizational issues - Rationing technician - Production preparation technician - Technical documentation preparation technician
Further academic studies	Second-level higher education. Master’s degree
Instruction and Assessment	
Teaching and learning	Student-centered training, lectures, practical classes, independent work with the use of textbooks, manuals, training through practice,

	consultations, project work, preparation of bachelor's qualification work.
Assessment	<p>Credit-transfer system, which provides for student assessment for all types of classroom and non-auditory educational activities, aimed at mastering the educational program workload.</p> <p>Written exams, internship report, presentations of individual assignments. Formative module assessment, final control in the form of exams and tests in the relevant disciplines, calculation and graphic works, coursework and projects. Public defense of the bachelor's qualification work.</p>
Program learning outcomes	
Program learning outcomes as defined by the standard	<p>To apply the basic theories, methods and principles of mathematical and natural sciences in the field of professional activity.</p> <p>To apply basic professional and scientific knowledge in the field of social sciences and humanities and economic sciences in cognitive and professional activity.</p> <p>To demonstrate oral and written communication skills in national and foreign languages, using interpersonal skills, working in an international context with professionals and non-professionals in the industry, using modern means of communication.</p> <p>Mastering working skills to effectively work independently (course and graduation paper) or in a group (laboratory work, including the acquisition of leadership skills in their performance), the ability to get the desired result within a limited time period with an emphasis on professional honesty and the exclusion of plagiarism.</p> <p>Proficient in the state and foreign languages, ability to use professional terminology.</p> <p>To demonstrate the ability to work with geodetic tools and use topographic materials to design and create construction and engineering objects.</p> <p>To use and develop technical documentation, including the use of modern information technology.</p> <p>To demonstrate the ability to effectively apply the modern building materials, products and structures based on the knowledge of their technical characteristics and manufacturing technology.</p> <p>To create or apply space-planning solutions for further design, including the use of information technology.</p> <p>To assess the impact of climatic, engineering, geological and environmental features of the construction site on the construction design of construction sites.</p> <p>To determine and evaluate the load and stress-strain state of soil foundations and load-bearing structures of buildings (structures), including using modern information technologies.</p> <p>To develop constructive solutions for the object of construction on the basis of knowledge of nomenclature and design forms, ability to calculate and construct the building structures and nodes of their connection.</p> <p>To develop and evaluate engineering solutions for engineering networks.</p> <p>Adhere to the modern requirements of regulatory documentation in the field of construction.</p> <p>To perform and analyze economic cost calculations for construction sites.</p> <p>To design technological processes of erection and equipping of buildings (structures) and installation of engineering systems and networks.</p> <p>To organize and manage construction processes in the construction of construction sites and their operation, repair and reconstruction, taking into account safety requirements.</p>

	<p>To demonstrate understanding of urban design principles and infrastructure and urban facilities.</p> <p>To ensure reliable and safe operation of building structures, constructions and utilities.</p> <p>To apply the basic principles, theories and methods of construction mechanics for the calculation of elements of buildings and structures under the action of loads and impacts of different nature, taking into account their interaction, using computer-aided design systems.</p> <p>To demonstrate the ability to calculate and design reinforced concrete (monolithic and precast), stone, metal and wood structures and their joints using the requirements of regulations, providing reliable and cost-effective design solutions.</p> <p>To be able to analyze and apply the results of engineering-geological surveys, to reasonably choose the bearing layers of soil foundation, to design the foundations of different types and to know the basic approaches to construction in areas with difficult engineering-geological conditions.</p> <p>To provide the organization of construction of buildings and engineering structures of different architectural and technical complexity with the use of modern energy efficient structural materials and technologies.</p> <p>To apply in the design of organizational and technological solutions the erection of buildings and structures base of modern technologies of construction production and be able to put them into practice.</p> <p>To implement effective methods of managing complex construction projects with an awareness of responsibility for decisions and quality assurance.</p> <p>To predict and be able to evaluate the economic feasibility of erecting buildings and engineering structures at the design stage.</p>
Program learning outcomes as defined by the higher education institution	<p>To evaluate and predict possible consequences when using underground space.</p> <p>To apply and implement innovative materials and technologies in construction.</p> <p>To apply modern methods of calculation and know the methods of establishing the technical condition of building structures.</p> <p>To be able to design building structures for various purposes using modern materials and technologies.</p> <p>To be able to apply methods of research of silicate production and technological processes of the construction industry.</p>
Resources for program implementation	
Staffing	The educational programme is provided by scientific-pedagogical staff of 80 persons, 4 of them are doctors of science, professors, 50 candidates of sciences, associate professors, 21 senior teachers and 5 assistants without scientific degrees.
Materiel and technical support	<p>The condition of the material and technical base meets the requirements and provides an opportunity for an effective educational process and organization of research work.</p> <p>30 laboratories and specialized offices are used to prepare the applicants. The specialized computer laboratories of the departments and the University as a whole have modern equipment and software. The available premises (educational, training, production, household, sports and other) of the University meet the sanitary rules and regulations, state building norms of Ukraine.</p>
Information and training support	The content and quality of information and teaching support meets the requirements and is sufficient to ensure the qualitative training of

	<p>specialists in the current context. Information about educational programs, educational, scientific and educational activities, the structure of the University, admission rules, announcements of events, news, etc. is distributed on the official site of the University (https://www.kname.edu.ua/). O.M. Beketov NUUE has a library, which provides scientific and fiction literature subscription as well as reading rooms for 540 seats. The University has an electronic repository (http://eprints.kname.edu.ua/), which provides access for higher education students to methodical and educational materials (educational-methodical complexes of disciplines, materials for independent and individual work of students. Programs of practice, etc.), as well as the electronic version of the scientific and technical collection "Municipal Economy of Cities" and materials of scientific conferences. Students and teachers are provided with access to the Moodle Distance Learning System (http://cdo.kname.edu.ua). All computers in the library are connected to the World Wide Web. The Reading Room provides access to Internet resources using Wi-Fi technology. Access to Web of Science and Scopus scientometric databases is available.</p>
Academic mobility	
National Credit Mobility	
	<p>Cooperation Agreement № 89 between O.M. Beketov National University of Urban Economy in Kharkiv and Lodz Technical University (Poland)</p> <p>Cooperation Agreement № 88 dated 10.10.17 between O.M. Beketov National University of Urban Economy in Kharkiv and University of Nova Gorica (Slovenia).</p> <p>Cooperation Agreement № 69 of 2016 between O.M. Beketov National University of Urban Economy in Kharkiv and Middle East Technical University (Turkey).</p> <p>Cooperation Agreement № 75 between O.M. Beketov National University of Urban Economy in Kharkiv and Aristotle University, Thessaloniki (Greece)</p> <p>Cooperation Agreement № 90 between O.M. Beketov National University of Urban Economy in Kharkiv and Estonian University of Natural Sciences (Estonia)</p>
Training of foreign higher education applicants	<p>Training of foreign citizens is conducted in foreign and national languages.</p>