

"INNOVATIVE METHODS AND TECHNOLOGIES IN DESIGN, CONSTRUCTION AND MANUFACTURE OF BUILDING STRUCTURES OF BUILDINGS "

ANNOTATION

TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

7-06-0732-01 "Construction" Specialization "Industrial and civil construction" (Advanced higher education)

	Form of higher education	
	Full-time (daytime)	Correspondence
Course	1,2	2
Semester	2,3	3,4
Lectures, hours	100	20
Practical classes, hours	34	8
Pass, semester	2	3
Exam, semester	3	4
Classroom hours per academic discipline	134	20
Independent work, hours	320	426
Total hours per academic discipline / credit units	454/13	

1. Brief content of the discipline: 1. Development of building structures and technologies. 2. General information about modern technologies. 3. General provisions related to the design of reinforced concrete structures. 4. Computer-aided design and engineering design. 5. Modern building materials and products. 6. Technology of dismantling and destruction of buildings, structures and structures. 7. Planning of experimental studies. 8. Trends in the development of architectural solutions. 9. Technology of erection of objects in special conditions. 10. Energy-saving and resource-saving solutions in construction.

2. As a result of mastering the academic discipline, the student must know:

- modern methods for calculating the structures of buildings and structures made of reinforced concrete, metal, wood;
- aspects of labor protection and safety during the dismantling of building structures of buildings and structures;
- factors of optimal design of modern technologies;

be able to:

- to form - physical and mathematical formulation of problems for the study of design methods; - analyze the behavior of production systems; - choose and implement methods of conducting scientific research in the field of modern technologies and construction of facilities; - use probabilistic methods for assessing the technical condition of building structures of buildings and structures;

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- analyze and summarize the results of research, and bring them to practical implementation;

- set and solve problems related to the design of buildings and structures;

- to model and perform the necessary engineering calculations, as well as be able to present and visualize the results of their activities in accordance with the regulated requirements for the system of design and estimate documentation and at a high professional and aesthetic level;

- update the acquired theoretical and practical skills.

have a skill:

- mandatory skills that meet modern requirements for a qualified civil engineer; - modern and computer technology, computer technology and methods of their use in professional construction activities. - skills to analyze the latest achievements of science in the field of construction.

3. Formed competencies

UK-5. Develop innovative susceptibility and ability to innovate.

UK-6. Be able to predict the conditions for the implementation of professional activities and solve professional problems in conditions of uncertainty.

SK-6. Use innovative methods and technologies in the design, organization, construction and manufacture of building structures of buildings and structures, the construction of foundations for industrial and civil buildings.

4. The current certification of students is carried out to determine the compliance of the results of their educational activities with the requirements of educational standards, curriculum, documentation of educational programs of higher education. Forms of the current attestation of students are tests and exams. Current certification is carried out in oral or oral-written form.