METAL CONSTRUCTIONS

ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-70 02 01 Industrial and civil construction

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence
Well	2, 3	3, 4	3
Semester	4, 5, 6	5, 6, 7	5, 6
Lectures, hours	102	22	16
Practical (seminar) classes, hours	84	20	12
Laboratory classes, hours	16	4	-
Course project, semester	5, 6	6, 7	5, 6
Test, semester	four	5	-
Exam, semester	5, 6	6, 7	5, 6
Classroom hours per academic discipline	202	46	28
Independent work, hours	158	314	332
Total hours per academic discipline / credit units	360/9		

1. Brief content of the discipline

Materials of metal structures. Material work. Fundamentals of calculation of metal structures. Assortment. Connections of elements of metal structures. Welded and bolted connections of elements, work and calculation. Beams and beam structures. Centrally compressed columns. Farms. Metal structures of one-story industrial buildings. Fundamentals of design and layout of the building frame. Features of the work and calculation of the building frame. Cover elements. Frame columns. Crane structures. Fachwerk elements. Large-span structures (beam, frame, arched). Leaf structures. Structures of multi-storey buildings. High-rise structures. Shells. membranes. dome covers. Hanging structures. Reservoirs. Gas holders. Bunker. Silos.

2. Learning outcomes

As a result of mastering the academic discipline, the student must

know:

- methods for calculating metal structures operating under load in terms of limit states;
- design methods for steel frames of one-story industrial buildings;

be able to:

- use normative, obligatory and recommended documentation and literature;
-calculate metal structures for the first and second groups of limit states;

own:

- modern method of calculation of structures of buildings and structures made of steel;
- PC in the design of building structures of buildings and structures;

3. Formed competencies

UK-1 - Master the basics of research activities, search, analyze and synthesize information.

UK-5 - Be capable of self-development and improvement in professional activities.

BOD-10 - Apply technical, regulatory, legal acts on the design of metal reinforced concrete, stone, wooden structures and plastic structures to solve engineering and construction problems.

4. The current attestation of students is carried out to determine the compliance of the results of their educational activities with the requirements of educational standards, educational program documentation of educational programs of higher education. The form of the current attestation of students is a test and an exam. The current certification is carried out in oral and written form. The form of intermediate certification is a test, which is carried out in writing and includes problem solving.