# "Strength of materials and the theory of elasticity" (name of practice)

# ANNOTATION

# TO THE PRACTICE PROGRAM OF HIGHER EDUCATION INSTITUTIONS

**Specialty** 1-40-05 01 "Information systems and technologies

**Direction of the specialty** 1-40-05 01 "Information systems and technologies (in design and production)"

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence abbreviated
Well	2	2	2
Semester	four	four	3
Lectures, hours	34	6	6
Practical (seminar) classes, hours	34	eight	eight
Report, semester	four	four	3
Classroom hours per academic discipline	68	fourteen	fourteen
Independent work, hours	36	94	94
Total hours per academic discipline / credit units	108/3		

1. Summary of the practice program (goals and objectives of the practice)

The purpose of the discipline is to develop students' skills in calculating typical structural elements, mechanical transmissions, working bodies of machines and mechanisms for strength, rigidity, stability and durability.

# 2. Learning outcomes

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

#### know

- the main hypotheses of mechanics of materials about the properties of structural materials and the nature of deformation;
  - general requirements for structural materials;
  - methods for calculating typical structural elements for strength, rigidity and stability;
  - methods of experimental study of stresses and strains;

## be able to:

- apply in practice methods and approaches to solving engineering problems of calculating structures, parts and assemblies of machines for strength, rigidity and stability;
  - investigate stresses and strains by experimental methods;
- to carry out the formulation of tasks, taking into account the complex operational conditions of the functioning of the object under study;

## own:

- methods of theoretical and experimental analysis of structures for strength, rigidity and stability, taking into account the properties of structural materials;
  - methods of structural analysis for their optimal use. .
- 3. Formed competencies
- SC-4 Use the basic laws of natural sciences in professional activities
- 4. Form of the current certification

### **OFFSET**