

ANNOTATION
 TO THE CURRICULUM OF THE DISCIPLINE
 "MECHANICS OF MATERIALS"
 For specialties 1-36 01 01 "Technology of mechanical engineering"
1-53 01 01 "Automation of technological processes and production (by directions)"
 Specialist Qualification: Engineer

	Form of higher education		
	Full-time	Correspondence for the specialty 1-36 01 01 "Technology of mechanical engineering"	Abbreviated correspondence for the specialty 1-36 01 01 "Technology of mechanical engineering"
Course	2	3	2
Semester	3, 4	5, 6	4
Lectures, hours	68	12	8
Practical classes, hours	68	-	6
Laboratory classes, hours	32	12	4
Classroom examination		5 (2 hours), 6 (2 hours)	4 semester (2 hours)
Exam, semester	3,4	5, 6	4
Classroom hours for the academic discipline (including for controlled independent work)	168 (10)	28	20
Independent work, hours	92	232	240
Total hours per academic discipline / credits	260/6	260/6	260/6

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

2. Planned results of studying the discipline - as a result of mastering the academic discipline, the student must

know: – 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 various products for strength, rigidity and stability;

- 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 products for strength, rigidity and stability, taking into account the properties of structural materials;

- skills in drawing up design schemes and conducting engineering analysis using computer tools;

– methods of structural analysis for their optimal use.

3. Requirements for the development of an academic discipline - the development of this academic discipline should ensure the formation of the following competencies:

BOD-4, SK-2 - to know modern theories of strength about the properties of modern materials, the principles and stages of design and calculation of parts and machines;

BPK-4.1, SK-2.1 - to know modern ideas about the properties of structural materials and their relationship with the strength characteristics of parts, be able to determine stresses and strains in typical machine parts.

4. Educational technologies: traditional.