

" KINEMATICS AND DYNAMICS OF A RIGID BODY"

(name of the discipline)

ANNOTATION TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-36 01 04 “Equipment and technologies for highly efficient material processing processes”

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence abbreviated
Well	2		
Semester	3		
Lectures, hours	50		
Practical (seminar) classes, hours	68		
Laboratory classes, hours			
Classroom examination (semester, hours)			
Coursework, semester			
Course project, semester			
Report, semester			
Exam, semester	2		
Classroom hours per academic discipline	118		
Independent work, hours	134		
Total hours per academic discipline / credit units	252/7		

1. Brief content of the discipline

discipline "Kinematics and dynamics of a rigid body" studies the basic concepts, laws and methods of theoretical and analytical mechanics and their application to study the dynamics of machines and methods for their calculation, as well as to build mathematical models of machines used in computer-aided design and forecasting.

2. Learning outcomes

- know the basic theoretical provisions of statics, kinematics and dynamics of a material point and a rigid body: methods for calculating static and dynamic systems, units and mechanisms of machines.

- be able to apply the basic laws and theorems of mechanics to solve applied engineering problems; to make calculated mathematical models of machines using computer technology for their solution and analysis.

- own the methods used in mechanics to describe mechanical systems; laws and methods of mechanics for the analysis of complex mechanical systems; laws and methods of mechanics to build mathematical models of mechanical systems

3. Formed competencies

BOD-8 Know the methods of kinematics and dynamics of mechanical systems and be able to apply them to solve applied problems

4. Requirements and forms of current and intermediate certification.

performance and protection of individual tasks, performance of control works. Students who have not passed and have not defended individual assignments are not allowed to take the exam