

Summary

"Mechanics 1.3"

"Mechanics 1.3" is a general scientific discipline that combines Theoretical mechanics, Strength of materials, Theory of mechanisms and machines, Machine parts. As a result of the development of the discipline, students should acquire knowledge, generate competence and skills required in engineering practice based specialties.

Objectives of development of the discipline: the formation of the students of the system engineering thinking and outlook in the creation, use and operation of mechanisms and structures on the basis of knowledge of modern methods of calculation, construction and design, including automated.

The main results of the development of the discipline is the ability to:

- 1) write the equilibrium equations and the equations of motion for a point, rigid body and the bodies of the system;
- 2) to solve the equilibrium equations and the equations of motion by means of mathematical analysis and methods of theoretical mechanics;
- 3) perform analysis and synthesis of mechanisms;
- 4) to define and calculate the main characteristics of parts.