

Summary

"Theoretical Mechanics 2"

The course "Theoretical Mechanics 2" are considered the laws and methods of mechanics as the natural science of nature. "Theoretical Mechanics 2" refers to the cycle of scientific disciplines and serves as a scientific basis for the development of general engineering and specialty engineering disciplines. "Theoretical Mechanics - 2" includes the following sections: "The dynamics of the system and the point", "Analytical Mechanics", "rigid body dynamics", "impact theory".

Particular attention in the course "Theoretical Mechanics 2" is given to the formation of a scientific outlook, as a result of the study and explanation of the phenomena that occur in nature and in technology.

The knowledge gained in the course "Theoretical Mechanics 2", will help in the study of general engineering and special disciplines, will form the basis of scientific and technological thinking of the modern engineer.

The purpose of discipline is to form a system of 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) be the equations of motion point, rigid body and the bodies of the system;
- 2) to solve the differential equations of motion by means of mathematical analysis and methods of theoretical mechanics;
- 3) apply the methods of analytical mechanics to the study of equilibrium and motion of mechanical systems.