

PHYSICS
COURSE SYLLABUS ABSTRACT

Specialty 6-05-0715-03 Cars, tractors, mobile and technological complexes

	Form of higher education
	Full-time (daytime)
Course	1, 2
Semester	2, 3
Lectures, hours	68
Practical (seminar) classes, hours	32
Laboratory classes, hours	50
Exam, semester	2, 3
Class hours in the academic discipline	150
Independent work, hours	174
Total hours per academic discipline / credit units	324/9

1. Brief content of the academic discipline: The purpose of the academic discipline is to provide the future engineer with the basis of his theoretical training in various fields of physical science, which allows him to navigate the flow of scientific and technical information and the formation of a materialistic worldview and the scientific method of cognition.

2. Learning outcomes: As a result of mastering the academic discipline, the student should know: the basic laws and theories of classical and modern physical science, as well as the limits of their applicability; methods for measuring the physical characteristics of substances and fields; physical foundations of methods for studying substances; principles of experimental and theoretical study of physical phenomena and processes; be able to: apply the laws of physics to solve applied engineering problems; use measuring instruments in the experimental study of physical and technological processes; process and analyze the results of experimental measurements of physical quantities; have the skill: physical modeling of technical processes; analysis and solution of applied engineering problems.

3. Competencies being formed: BPC-2 Use the basic concepts and laws of physics, the principles of experimental and theoretical study of physical phenomena and processes, apply the acquired knowledge to solve theoretical and practical problems

4. Requirements and forms of current and intermediate certification: Assessment of the level of knowledge of students is carried out by using various means of diagnosing competencies. These are the means of current diagnostics: written test questions on theory (twice a semester), written tests on solving problems, reports on laboratory work with their oral defense. Intermediate attestation (exam) is carried out in two stages. The first stage includes a written answer to questions, which are a selection of questions submitted for the exam, and one problem. The second stage consists of a brief conversation with the student on the fundamental issues of the course.