

PHYSICS
COURSE SYLLABUS ABSTRACT

Specialty_6-05-0715-07 Operation of ground transport and technological machines and complexes

	Form of higher education		
	Full-time (daytime)	Part-time	Part-time reduced
Course	1, 2	2	1
Semester	2, 3	3, 4	1
Lectures, hours	68	16	8
Practical (seminar) classes, hours	32	8	4
Laboratory classes, hours	32	8	4
Classroom examination, hours		4 semester (2 h.)	
Exam, semester	2, 3	3, 4	1
Class hours for the academic discipline	132	34	16
Independent work, hours	192	290	308
Total hours per academic discipline / credit units	324/9	324/9	324/9

1. Course outline: The purpose of the 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. Course 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: BPC-1 Apply knowledge of natural science disciplines for experimental and theoretical study, analysis and solution of applied engineering problems.

4. Requirements and forms of midcourse evaluation and summative assessment: 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.