

PHYSICS

ANNOTATION

TO THE SYLLABUS OF INSTITUTION OF HIGHER EDUCATION

Specialty 1-53 01 02 Automatic information processing system

	Study mode	
	Full-time	Part-time
Year	1,2	-
Semester	2,3,4	-
Lectures, hours	98	-
Practical classes (seminars), hours	48	-
Laboratory classes, hours	102	-
In-class test (semester, hours)	-	-
Exam, semester	2,3,4	-
Contact hours	244	-
Independent study, hours	302	-
Total course duration in hours / credit units	550 / 0	

1. Brief content of the discipline: 1. Mechanics 2. Molecular physics and thermodynamics. 3. Electrodynamics. 4. Harmonic oscillations, mechanical waves 5. Optics. 6. Quantum and nuclear physics.

2. As a result of studying the discipline, the student must:

know:

- the basic laws and theories of classical and contemporary physical science, as well as the limits of their application;
- methods of measuring physical characteristics of matter and fields;
- the physical basics of substance investigation techniques;
- principles of experimental and theoretical studying of physical phenomena;

be able to:

- use physical laws for solving applied engineering problems;
- use measuring instruments at experimental investigation of physical and technological processes;
- process and analyze the results of experimental measuring of physical quantities;

possess:

- method of physical modeling of technological processes;
- methods of analysis and solving of applied engineering problems;
- techniques of determination of physical properties of materials.

3. Competencies being developed

БПК-2 Possess the basic concepts and laws of physics, principles of experimental and theoretical studying of physical phenomena and processes

4. Current attestation of students is performed to determine correspondence of their academic activity results to the educational standards requirements, syllabus documentation of educational programs of higher education. The forms of the current student attestation are pass/fail exams and graded exams. The current attestation is performed in the oral and in the oral and written forms. The intermediate attestation form is in-class test performed in the written form.