MODERN NONDESTRUCTIVE TESTING TECHNOLOGIES
SUMMARY
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION
Specialty 7-06-0716-03 Instrument Engineering
Profiling: Information systems and technologies of non-destructive testing and diagnostics

	Form of higher education		
	Face-to-face (day-to-face)	Absentee	Absentee concoction
Course	1,2	2	
Semester	2,3	3,4	
Lectures, hours	50	10	
Practical (seminar) classes, hours	32	8	
Laboratory classes, hours	32	8	
Classroom hours in the academic discipline	114	26	
Offset, Semester	2	3	
Exam, semester	3	4	
Independent work, hours	286	374	
Total hours in the academic discipline/ credit units	400/12		

1. Summary of the academic discipline.
Study of modern physical methods and information technologies of non-destructive control of the natural environment, substances, materials and products.

2. Training outcomes.
As a result of mastering the educational discipline, the student must
know: the physical essence of modern methods of non-destructive testing and diagnostics of the natural environment, substances, materials and products; classification of methods and means of non-destructive testing; applications of modern non-destructive testing technologies in industry;
be able to: analyze trends, perspectives and directions of development of methods and technological non-destructive testing of substances, materials and products; correctly select the test method, scheme and main control modes; investigate the influence of various factors on the results of monitoring integrity defects, structure parameters and physical and mechanical characteristics of materials, thickness of coatings and surface-hardened layers; identify optimal control conditions in order to develop and optimize non-destructive testing methods; develop new technologies;
have skills: practical implementation of modern technologies and systems used in non-destructive testing of materials and industrial facilities.
3. Competencies to be formed.
The development of this educational discipline should ensure the formation of the following competencies: SK-1. Use modern devices, systems of non-destructive con-troll and diagnostics of industrial products and facilities, choose effective technology of non-destructive testing for specific facilities

4. Requirements and forms of current and intermediate certification: abstract, test work, test and exam (oral and written form). For admission to the exam, the student, in accordance with the curriculum, is obliged to perform control work, pass the test and abstract.