

INSTRUMENTS AND SYSTEMS FOR NON-DESTRUCTIVE TESTING
ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-38 80 01 Instrumentation

Profiling : Technique and technology of non-destructive testing

II stage of higher education (master's degree)

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence abbreviated
Well	1	1	
Semester	1	2	
Lectures, hours	54	12	
Practical (seminar) classes, hours	eighteen	four	
Laboratory classes, hours	eighteen	four	
Classroom hours per academic discipline	90	20	
Exam, semester	1	2	
Independent work, hours	140	210	
Total hours per academic discipline / credit units	230/7		

1. Brief content of the discipline

The goals and objectives of the discipline are to provide an opportunity for undergraduates to deeply master modern scientific knowledge in the field of development and creation of devices and systems for non-destructive testing and technical diagnostics of industrial facilities

2 . Learning Outcomes

As a result of mastering the academic discipline, the student must

know: classification of means of non-destructive testing of substances, materials and products; block diagrams and design features of devices and systems for non-destructive testing and diagnostics; types, schemes and design features of measuring transducers; areas of application of non-destructive testing means;

be able to: analyze trends, prospects and directions for the development of devices and systems for non-destructive testing of substances, materials and products; identify the optimal control conditions in order to develop and optimize non-destructive testing devices and systems; develop new tools and systems that provide the greatest technical and economic effect in non-destructive testing.

own: understanding of the features of technical devices, instruments and systems used in non-destructive testing of materials and industrial facilities.

3. Formed competencies

The development of this academic discipline should ensure the formation of the following competencies: SK-1 - Use modern devices, systems for non-destructive testing and diagnostics of industrial products and objects, choose effective non-destructive testing technologies for specific objects

4. Requirements and forms of current and intermediate certification: reports on practical and laboratory classes and an exam (oral and written form). In order to be admitted to the exam, the student, in accordance with the curriculum, must complete five practical tasks and five laboratory work.