FUNDAMENTALS OF SCIENTIFIC RESEARCH
ABSTRACT
TO THE EDUCATIONAL INSTITUTION'S CURRICULUM

Specialty 6-05-0716-03 Information and measuring instruments and systems
Specialization: Information technology and non-destructive testing and diagnostic systems

The distribution of academic discipline by semester

	Form of obtaining higher education		
	Full-time (daytime)		Correspondence abbreviated
Well	4		4
Semester	7, 8		7,8
Practical classes	62		14
Course project, semester	7, 8		7,8
Exam, semester	62		14
Independent work, hours	60		108
Total hours per academic discipline / credit units	122/4		

1. Course Summary

This course covers the study of the methodological foundations of scientific research applied to non-destructive testing and diagnostics. Particular attention is paid to the practical use of various physical phenomena and effects, methods, and apparatuses for their description and analysis, as well as the search for more effective means of transforming and processing the obtained information.

2 Learning outcomes. Upon completion of the course, the student should know the methodology of selecting the direction of scientific research, identifying characteristic features and contradictions to motivate research, methods of analyzing the object of control, defects, methods of preparing and conducting research; be able to analyze literary sources, conduct theoretical and experimental research, process the results, develop proposals for their use; possess the skills of setting up and operating devices, presenting research results in accordance with the requirements of regulatory documents.

3 Developed competencies Mastering this course should contribute to the development of the following competencies: be able to independently analyze a problem and conduct theoretical and experimental research.

4 Requirements and forms of current and midterm assessment Current assessment is carried out on the basis of students' defense of individual assignments, as well as their completion of tests. Both oral and written forms are used. Midterm assessment is a test. It is carried out orally