

METHODS AND INSTRUMENTS CONTROL OF BUILDING STRUCTURES
(name of the discipline)

ANNOTATION
TO TRAINING PROGRAMS IN INSTITUTIONS OF HIGHER EDUCATION

Specialty 1-54 01 02 Methods and instruments for quality control and diagnostics of the state of objects

Direction specialties

Specialization 1-54 01 02 0–2 non-destructive control of materials and products

	Form of higher education
	Full-time (daytime)
Кр	4
Semester	7
Lectures, hours	32
Laboratory classes, hours	16
Exam, semester	7
Classroom hours per academic discipline	48
Independent work, hours	60
Total hours per academic discipline / credits	108/3

1. Brief content of the discipline

The purpose of teaching this discipline is to familiarize students with the main types of building materials and structures, with the physical and mechanical, chemical, technological and operational properties of building materials, with the requirements of regulatory documents, instrumentation, methodological and technological issues of using non-destructive testing to assess the quality indicators of building materials and designs.

2. As a result of mastering the academic discipline, the student must to:

– know: types of building materials and products in accordance with the nomenclature; basic physical-mechanical, chemical, technological and operational properties of building materials, products and structures; requirements of regulatory documents for building materials, products and structures; methods for calculating the physical and mechanical characteristics of building materials and structures, including using modern software products; methods and means of monitoring the parameters of technological processes, product quality indicators.

– be able to: choose the optimal HK method and means for specific objects, evaluate their capabilities in terms of achieving maximum information content and reliability; carry out quality control of raw materials and products at all stages of production of building materials and structures; evaluate and control the quality of construction and installation works.

– own: skills of working with basic reference and regulatory documents for the production and quality control of building materials and structures; skills in the use of standard and modern research methods, instruments and equipment when conducting standard tests of materials and structures.

3. Formed competencies CK-4. Be able to develop designs of assembly units, assemblies and parts of non-destructive testing devices.

4. Requirements and forms of current and intermediate certification. To assess knowledge, intermediate certification is used in the form of defense of laboratory work and current certification is in the form of an exam.