MEASUREMENT THEORY
ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty: 7-06-0716-03 – Instrumentation
Specialization: Information technologies and systems of non-destructive testing and diagnostics

	STUDY MODE	
	full-time	part-time
Course	**1**	**1**
Semester	**1**	**1**
Lectures, hours	**34**	**8**
Practical classes, hours	**34**	**8**
Exam, semester	**1**	**1**
Contact hours	**68**	**16**
Independent work, hours	**132**	**184**
Total course duration in hours / credit units	**200/6**	

1 **Course outline**

The purpose of the discipline is to master the fundamentals of metrology, develop a system solution for measuring tasks, prepare for the development of applied disciplines devoted to methods and measuring instruments.

2 Course learning outcomes

As a result of mastering academic disciplines, the student must

know: the main directions of the modern theory of measurements; currently known characteristics of the magnitude of the magnitude, procedures for transferring the magnitude of the magnitude from standards to reliable measurements of means (verification schemes);

be able to: build mathematical models of object measurements; error estimation of functions of approaching parameters; analyze climate measurements;

possesses the skill: an idea of the products of constructing measurement functions of various physical quantities; skills in processing measurement results.

3 Emerging competencies

Mastering this academic discipline should ensure the formation of the following competencies: to apply measurement theory in conditions of increasing complexity and necessary accuracy of measuring instruments and tasks to be solved

4 Requirements and forms of current and intermediate certification

The general assessment of students' knowledge, skills and abilities consists in analyzing their work while performing various types of classes and elements of the current and intermediate attestation. Thus, during a brief survey of students before the start of the lecture, their knowledge in understanding the previously presented material is evaluated based on the results of the previous lecture. When students perform laboratory work, it is assessed how profoundly they have mastered the practical skills of working with devices. When studying the discipline, the following methods are used: current certification in the form of control (written form) and practics