

**INSTRUMENTS AND MEASUREMENT METHODS UNDER THE CONDITIONS OF
INNOVATIVE DEVELOPMENT OF SCIENCE, ENGINEERING AND TECHNOLOGIES**
(name of academic discipline)

**ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION**

Specialty 7-06-0716-03 – Instrumentation

	Форма получения высшего образования	
	Очная (дневная)	Заочная
Course	1	1
Semester	1	1
Lectures, hours	34	8
Practical (seminar) classes, hours	16	4
Exam, semester	1	1
Classroom hours per academic discipline	50	12
Independent work, hours	94	132
Total hours per academic discipline /	144/4	

1. Brief content of the discipline

The purpose of the discipline is to master the fundamentals of metrology, develop a systematic approach to solving measurement problems, prepare for the development of applied disciplines devoted to methods and measuring instruments.

2. Learning outcomes

As a result of mastering the academic discipline, the student must know: the main directions of the modern theory of measurements; to know the currently achieved characteristics of the accuracy of reproduction of quantities, the procedures for transferring units of physical quantities from standards to working measuring instruments (verification schemes); be able to: build mathematical models of measurement objects; evaluate the errors of functions of approximate values of parameters; analyze measurement conditions; have a skill: an idea of the principles of constructing equations for the processes of measuring various physical quantities; skills in processing measurement results.

3. Formed competencies

Codes of generated competencies	Names of competencies being formed
УК-5	Develop innovative receptivity and ability to innovate
УПК-3	Solve the problems of optimal use and design of information-measuring systems based on the analysis and synthesis of mathematical models of specific measurement processes under the conditions of known limitations in relation to system elements

4. Requirements and forms of current and intermediate certification.
The module-rating system of knowledge assessment is used. Exam.