

# EXPERT SYSTEMS IN NONDESTRUCTIVE TESTING AND DIAGNOSTICS

## ANNOTATION TO THE WORKING PROGRAM OF DISCIPLINE

**Specialty** 7-06-0716-03 "Instrumentation Engineering"

**Specialization (profile):** Information systems and technologies of nondestructive testing and diagnostics"

	Form of higher education	
	Full-time (daytime)	Distance learning
Course	1	2
Semester	2	3
Lectures, hours	16	4
Practical training, hours	34	8
Exam, semester	2	3
Auditorium hours in the academic discipline	50	12
Independent work, hours	130	168
Total hours in the academic discipline / credit units	180/5	

### 1 Purpose of the training discipline

The purpose of the discipline is to familiarize students with the ability to apply methods, techniques and technologies of building expert systems in non-destructive testing and diagnostics.

### 2 Planned results of studying the discipline

As a result of mastering the discipline, a master student should

#### **know:**

- types of systems and their models;
- approaches to the formation of knowledge bases;
- types of expert systems;
- stages of expert systems development;
- technologies of construction of expert systems.

#### **be able to:**

- develop knowledge bases for expert systems;
- to apply in practice the technologies of expert systems construction.

#### **To have the skill:**

- development of expert systems.

### 3 Requirements for mastering the academic discipline

Mastering of this academic discipline shall ensure the formation of the following competencies:

Names of competencies to be formed
Able to optimize the structure and functionality of nondestructive testing systems, develop methods of control of industrial objects