DEFECTS IN MATERIALS AND PRODUCTS

ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION
Specialty 1-54 01 02 - Methods and instruments for quality control and diagnostics of the state of objects

Specialization 1-54 01 02 02 - Non-destructive testing of materials and products

	Form of higher education
	Full-time (daytime)
Well	3
Semester	5
Lectures, hours	34
Practical (seminar) classes, hours	16
Report, semester	5
Classroom hours per academic discipline	50
Independent work, hours	58
Total hours per academic discipline / credit units	108/3,0

1. Brief content of the academic discipline. The academic discipline is aimed at familiarizing students with defects in materials and products, the causes of their formation, physical phenomena occurring during welding, casting, heat treatment, control methods, as well as the instrument base, methodological and technological issues of determining defects.

2. Learning outcomes. As a result of mastering the academic discipline, the student must

know:

– types and types of defects in various materials and products;

– operating conditions of various products and structures;

– theoretical foundations for the appearance of various defects;

– the influence of defects on the reliability of products and structures.

be able to:

- determine the type and type of defect;

- to predict the possibility of defects in various technological processes and operating conditions of products;

- classify defects in materials and products.

own:

– methods for assessing the impact of defects on the performance properties of products and structures;

- ways to detect various defects;

- troubleshooting methods.

3. Formed competencies: BOD-15 Be able to determine the types and types of defects and predict the possibility of their occurrence during the operation of products.

4. Requirements and forms of current and intermediate certification: test (written form). In order to be admitted to the exam, the student, in accordance with the curriculum, is required to take four written tests.