MODERN METHODS OF MATERIALS ANALYSIS

(name of the discipline)

ANNOTATION
TO THE CURRICULUM OF A HIGHER EDUCATION INSTITUTION

Specialty: 1-36 01 04 - Equipment and technologies of highly efficient material processing processes

	Form of higher education
	Full-time (day)
Course	4
Term	7
Lectures	34
Laboratory classes, hours	34
Exam, semester	7
Classroom hours for the academic discipline	68
Independent work, hours	58
Total hours / credits	108 / 3

1. Summary of the discipline:

The purpose of the discipline is the assimilation by students of knowledge about the structure and properties of metals, alloys and composite materials, the study of methods for determining physical and mechanical properties, evaluation of technological and operational properties.

2. Learning outcomes:

As a result of mastering the discipline, the student must

to know:

- basic methods for the study of mechanical, physical and chemical properties;
- basic structural research methods;

be able to:

- apply basic methods for the study of mechanical, physical and chemical properties;
- use basic structural research methods;
- rationally use reference literature on the selection of materials that provide the necessary indicators of properties;

own:

- practical skills in studying the structure and properties of materials;
- methods of selecting materials based on their properties and operating conditions.

3. Formed competencies:

SK-8: To know the properties, modern methods of physical analysis, technology for obtaining and processing nanomaterials and be able to apply this knowledge to product quality management.

4. Requirements and forms of current and interim certification.

Evaluation tools used: test tasks for the protection of laboratory and practical work, test tasks for the exam.

Forms of diagnosis: oral, written, oral-written.