WELDING TECHNOLOGY AND WELDED JOINTS
(name of the discipline)

ANNOTATION
TO УЧЕБНОЙTHE CURRICULUMEINSTITUTIONS OFHIGHER EDUCATION

Specialty 1-5401 02 "Methods and devices for quality control and diagnostics of the object's condition"

Specialty direction_____

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

	Form of higher education
	Full-time (full-time)work
Course	2
Semester	4
Lectures,	34 hours
Practical (seminar) classes, hours	16
Laboratory classes,	16 hours
Exam, semester	4
Classroom hours for the academic discipline	66
Independent work,	42 hours
Total discipline hours/credits	108/3

1. Summary of the academic discipline

The purpose of teaching the discipline is to form students of the specialty 1-5401 02 "Methods and devices for quality control and diagnostics of the objectcondition " ideas, knowledge and skills for choosing the main welding methods, knowledge for solving theoretical and practical problems of obtaining welded joints from various materials and alloys in the issues of welding technology of metals and alloys0 that are the object of quality control and diagnostics.

2. Learning outcomes

As a result of mastering the academic discipline, the student must:

know:

- the main types of welded joints;
- the physical nature and technological features of the main welding methods;
- technology of welding various metals and alloys;
- causes of defects and deformations of welded structures;
- types and features of equipment used for welding and surfacing;

be able to:

- decipher the designations of welds in drawings;
- calculate and design welded joints under the action of various types of loads, taking into account the requirements for manufacturability and resource conservation;
- choose basic and welding materials for the manufacture of welded structures;
- select the welding method and welding modes of welded joints of various designs;

own:

- method of calculation of welded joints and structures;
- the method of forming the optimal technological process, which ensures the production of high-quality welded joints;
- the method of design selection of the welding method, depending on the nature of production.

3. Emerging competencies

SK-13 - Be able to predict the performance of welded joints of objects based on the analysis of welding technology and types of defects.

4. Requirements and forms of current and interim certification.

When studying the discipline, a modular rating system for assessing knowledge is used. The assessment tools used in the academic discipline are stored at the department.