WELDING TECHNOLOGY
(name of the discipline)

ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-36 01 04 "Equipment and technologies for highly efficient material processing processes"

Direction of specialty _____

Specialization _____

	Form of higher education
	Full-time (daytime)
Well	**III**
Semester	6
Lectures, hours	34
Laboratory classes, hours	16
Practical lessons, hours	16
Coursework, semester	6
Exam, semester	6
Classroom hours per academic discipline	66
Independent work, hours	42
Total hours per academic discipline / credit units	108 / 3

1. Brief content of the discipline
The purpose of the discipline is to develop students' ideas, knowledge and skills on the physical foundations of various methods of fusion and pressure welding, the features of their use in industry, the principles of development of welding consumables, the technical methods of welding various metals and alloys, as well as the effective use of the acquired knowledge in practice.

2. Learning outcomes
As a result of mastering the academic discipline, the student must
know:
- types and methods of fusion and pressure welding used in production;
- features of technological processes and technologies for welding various classes of steels, cast iron and non-ferrous metals;
- device and main characteristics of power sources of the welding arc and equipment for arc welding and surfacing, electroslag welding and flame treatment;
- features of operation and scope of power sources and welding equipment.
be able to:
- choose the method of fusion welding and thermal cutting, welding materials, equipment and modes that ensure the quality of the welding process;
- evaluate various options for technological processes of fusion and pressure welding;
- to develop effective technologies for welding a given design, taking into account real production conditions;
- choose power sources and welding equipment that ensure the efficient passage of welding processes.
own:
- methods of control over the production of welding works;

- safety requirements in the production of welding work;
- rules for control of technological parameters of welding by fusion, pressure and thermal cutting;
- methods of calculation and selection of power sources and equipment;
- Rules for the operation of power supplies and equipment.

3. Formed competencies

SK-9: know the equipment, types and technological processes of welding production. To be able to carry out quality control of welded joints. Select and develop welding processes.

4. Requirements and forms of current and intermediate certification.

When studying the discipline, a module-rating system for assessing knowledge is used. Used assessment tools for the academic discipline are stored at the department.