WELDING AT HIGH-HAZARD FACILITIES

(name of the discipline)

ANNOTATION
TO THE CURRICULUM OF HIGHER EDUCATION INSTITUTIONS

Specialty 7-06-0714-02 Innovative technologies in mechanical engineering
Profiling Welding technologies

Advanced higher education

	Form of higher education	
	Full-time (full-time)	Full-time (full-time) Part-time
Well	2	2
Semester	3	4
Lectures, hours	50	12
Exam, semester	3	4
Classroom hours per academic discipline	50	12
Independent work, hours	150	188
Total hours per academic discipline/credit units	200/6	

1. Brief content of the academic discipline

The purpose of the academic discipline is to develop in students of specialty 7-06-0714-02 "Innovative technologies in mechanical engineering" (specialization "Welding technologies") in-depth knowledge about the state and prospects for the development of fusion welding in the production of especially critical welded structures from special steels and alloys, dissimilar materials used in energy and petrochemical engineering.

2. Learning outcomes

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

know:

– specific technological fundamentals of fusion welding of special steels and alloys and dissimilar compounds from them;

– requirements for the development of welding technologies depending on the purpose of the object and its operating conditions;

– requirements for personnel performing work at hazardous facilities:

– procedure for applying welding technologies;

– post-weld heat treatment of welded joints;

– procedure for certification of personnel in the field of welding production.

be able to:

– select materials depending on operating conditions and purpose of the structure;

– develop and qualify technological processes for welding metals and alloys using various fusion welding methods;

– propose and justify resource-saving welding technologies and heat treatment modes.

– organize safe working conditions when performing welding work.

have the skill:

– methods for assessing the technological strength of welded joints;

– application of methods for rational selection of welding materials and heat treatment modes depending on the operating conditions of welded structures.

3. Competencies being developed

Know the regulatory and technical documentation and features of welding technology at high-risk sites

4. Requirements and forms of current and intermediate certification.

To assess the quality of students' assimilation of educational material, including acquired competencies, ongoing certification is carried out during training sessions based on the results of the test. Interim certification of students is carried out based on the results of the current certification and includes an exam.

Current certification is carried out in the form of a written test (test tasks). Interim certification is carried out in the form of an oral and written exam.