

QUALITY MANAGEMENT SYSTEMS IN WELDING PRODUCTION

COURSE SYLLABUS ABSTRACT

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

Profiling Welding technologies

Advanced higher education

	STUDY MODE	
	full-time	Part-time
Year	1	2
Semester	2	3
Lectures, hours	34	8
Laboratory classes, hours	16	4
Pass/fail, semester	2	3
Contact hours	50	12
Independent study, hours	166	204
Total course duration in hours / credit units	216/6	108/3

1. Course outline

The purpose of the academic discipline is to obtain and master by undergraduates of specialty 7-06-714-02 “Innovative technologies in mechanical engineering” knowledge and skills on the physical foundations of innovative methods for managing the quality of welded structures and their use in welding production.

The objectives of the academic discipline are to develop in future masters the theoretical knowledge and skills necessary to resolve issues related to the implementation and application of advanced welding processes and control during the operation of technological processes and equipment, with conducting research in the field of improving these processes.

2. Course learning outcomes

Upon completion of the course, students will be expected to know:

- physical essence and technological features of innovative methods of monitoring and diagnostics;
- achievements of science and advanced technologies in the field of modern technological machines and equipment;
- use of modern equipment, technological processes and equipment, new materials in the field of mechanical engineering.

be able to:

- prepare and conduct classes with students in the field of innovative technologies in mechanical engineering, supervise research work;
- develop practical recommendations for the use of scientific research results, planning and conducting experimental studies;
- evaluate the technical and economic feasibility of using specific innovative methods of monitoring and diagnostics.

to possess a skill:

- processes of developing control and diagnostic technologies, improving their quality, automating technological processes, using computer technologies;
- methodology for determining technological parameters of control methods using modern equipment in accordance with state standards.

3. Competencies

Mastering this academic discipline should ensure the formation of the following competencies:

CK-12 Own modern quality management systems in welding production.

4. Requirements and forms of midcourse evaluation and summative assessment

The following forms are used to diagnose competencies:

- oral;
- written;
- oral and written.