

DIGITAL TECHNOLOGIES IN WELDING PRODUCTION

COURSE SYLLABUS ABSTRACT

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

(speciality code and name)

Welding technologies

(concentration)

Advanced higher education

	STUDY MODE	
	full-time	part-time
Year	1	1
Semester	1	2
Lectures, hours	34	8
Exam, semester	1	2
Contact hours	34	8
Independent study, hours	74	100
Total course duration in hours / credit units	108/3	

1. Course outline

The purpose of teaching the discipline is for undergraduates to obtain ideas, knowledge and skills in the field of digital technologies in welding production, the latest principles of operation of power supplies and methods of controlling the technological characteristics of the welding process.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

- main ways of development of welding technologies in mechanical engineering;
- methods for implementing digital control of the welding process;
- basic laws and principles of controlling the technological characteristics of the welding process.

be able to:

- analyze the principles of operation of digital technologies in welding equipment;
- apply the acquired knowledge in practice, setting up equipment and selecting the necessary parameters of the welding process.

to possess a skill:

- settings of welding equipment and selection of the most rational technologies.

3. Competencies

SK-2. Be able to develop new technology, assembly and welding equipment, technological equipment, mechanization and automation means

4. Requirements and forms of midcourse evaluation and summative assessment

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 tests. Interim certification of students is carried out based on the results of the current certification and includes an exam. Intermediate monitoring of academic performance is aimed at ensuring maximum efficiency of the educational process and increasing motivation to study.