CAD FOR WELDING PRODUCTION

ANNOTATION
TO THE CURRICULUM OF HIGHER EDUCATION INSTITUTIONS

Specialty 6-05-0714-03 Engineering and technical design and production of materials and products made from them.
Profiling Equipment and technology for welding production.

	Form of higher education		
	Full-time	Part-time	Part-time abbreviated
Well	3	3; 4	2; 3
Semester	5; 6	6; 7	4; 5
Lectures, hours	66	14	14
Practical (seminar) classes, hours	32	8	8
Laboratory classes, hours	34	6	6
Coursework, semester	6	7	5
Test, semester	5	6	4
Exam, semester	6	7	5
Classroom hours per academic discipline	132	28	28
Independent work, hours	156	260	260
Total hours per academic discipline/credit units	288/8	288/8	288/8

1. Brief content of the academic discipline.
The purpose of teaching the discipline is to develop students' ideas, knowledge and skills regarding the composition and capabilities of modern computer-aided design (CAD) systems, and the features of using CAD in welding production.

2. Learning outcomes.
As a result of mastering the academic discipline, the student must
know:
- methods for solving design, technological and scientific problems of welding production using CAD;
- fundamentals of designs of modern technical means of computer-aided design;
- ESTD standards.

be able to:
- use application software products for automated design of welding processes, welded structures, as well as welding technological equipment;
- select technical computer-aided design tools with optimal characteristics;
- use techniques for safe work with technical means during automated design.

bhave the skill:
- application of computer-aided design methods for welding processes, welded structures and welding technological equipment using modern software and hardware;
- application of methods for safe work with technical means during computer-aided design.

3. Formed competencies.
Know the principles of construction, types of CAD software, master the basics of computer-aided design of welding technologies, computer-integrated databases, calculation methods for determining the physical, mechanical and operational properties of products

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 laboratory work and practical exercises. Interim certification of students is carried out based on the results of the current certification. Intermediate monitoring of academic performance is aimed at ensuring maximum efficiency of the educational process and increasing motivation to study. Current certification is carried out in the form of defense of laboratory work and practical exercises in oral form, as well as testing in written form. Interim certification is carried out in the form of a test in the 5th semester and an exam in the 6th semester. Tests and examinations are conducted in oral and written form.