

TECHNOLOGY PRACTICE

ANNOTATION TO THE INTERNSHIP PROGRAM OF A HIGHER EDUCATION INSTITUTION

Specialty 1-36-01 06 - Equipment and technology of welding production

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	Form of higher education		
	Full-time (full-time)work	Part	- time Part-time abbreviated
Course	3	4	3
Semester	6	8	6
Total practice hours / credits	216/55		

1. Summary of the internship program (goals and objectives of the internship). The goals of technological practice are to consolidate and deepen the competencies achieved by students in the learning process, master the system of professional skills and initial experience of professional activity in the field of study.

For effective practical training, students use the knowledge, skills and abilities formed in the course of studying the following disciplines: "Mechanics of Materials", "MaterialScience", "Theory of mechanisms and machines", "Electrical engineering and Electronics", "Construction materials technology", "Theory of welding processes", "Fusion welding equipment", "Design of welded structures", "Technology of fusion welding and thermal cutting", "Technology and equipment of pressure welding", "Production of welded structures", "CAD of welding production", "Computer modeling of welding processes", focused on preparing for professional activities, providing lectures, laboratory and practical classes. Practice is the logical conclusion of studying these disciplines.

2. Learning outcomes. As a result of mastering the academic discipline, the student must:

know: theoretical foundations of joint formation in various types of welding; features of the operation of individual elements and solid welded structures; ways to ensure manufacturability, reduce stresses and deformations during welding.

be able to: choose materials for the course and diploma project.

possess: skills in maintenance, repair and prevention of welding equipment and production of welded structures; fundamentals of operational management of technological objects; rules of technological operation and safety during maintenance and repair of welding equipment, technical objects in relation to a specific workplace.

3. Formed competencies: CC-6 - Be able to apply basic scientific and theoretical knowledge to solve theoretical and practical problems.

BOD-4 - Possess basic methods, methods and means of obtaining, storing, processing information, skills of working with a computer as a means of managing information, and be able to work with information in computer networks.

BOD-5 - Master the methods of graphic representation of objects on a plane and in space, the requirements of a Unified system of design documentation; create drawings of technological equipment parts; draw up and develop design documentation.

BOD-7 - Possess the physical basics of welding methods, knowledge for solving theoretical and practical problems of obtaining welded joints of various metals and alloys, issues of technological weldability of metals and alloys.

BOD-8 - Master the technologies of fusion welding and thermal cutting of metals and alloys, know the equipment and issues of its operation and repair, welding materials and be able to choose the parameters of the welding mode that ensure the quality of welded joints.

BOD-9 - Know the physical nature, types and methods of pressure welding, be able to develop technology and equipment for welding metals and alloys in production conditions and apply quality control methods for welded joints.

BOD-10 - Possess calculation methods that confirm the operability of the designed products (machines, their components and mechanical parts) that meet the specified requirements, and skills in developing and executing design documentation.

BOD-16 - Be able to apply basic safety techniques, industrial sanitation, fire safety and methods of protecting production personnel, the public and the environment from the possible consequences of accidents, natural disasters, man-made disasters.

SK-6 - Be able to choose fusion welding equipment, power sources and welding modes that ensure efficient welding processes and high-quality welded joints.

SK-7 - Possess technologies of production of welded structures for various purposes, auxiliary equipment, principles of calculation of structures and equipment for strength and manufacturability, taking into account the specifics of production.

SK-8 - Know the principles of construction, types of CAD software, possess the basics of computer-aided design of welding technologies, computer-integrated databases, calculation methods for determining the physical, mechanical and operational properties of products.

SK-10 - Master the basic design principles, methods of designing and calculating welded structures using modern computer-aided design systems.

4. Forms of current certification: differentiated credit (oral form). In order to be admitted to the test, the student must submit a practice report in accordance with the curriculum, which includes an individual task, as well as a practice diary with a feedback from the head of the enterprise.