

**INNOVATIVE WELDING TECHNOLOGIES,
CUTTING AND HARDENING OF METALS IN ENGINEERING**
(course title)

**INTERNSHIP COURSE SYLLABUS
ABSTRACT**

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

Profiling Welding technology

Advanced higher education

	STUDY MODE	
	full-time	part-time
Year	1	2
Semester	1	3
Lectures, hours	34	8
Laboratory classes, hours	34	8
Exam, semester	1	2
Classroom hours per academic discipline	34	8
Independent work, hours	74	100
Total hours per academic discipline / credit units	108 / 3	

1. Internship course outline (aims and objectives)

The purpose of the discipline is to obtain and master the knowledge and skills of students on the physical foundations of innovative methods of welding, cutting and hardening of metals and their use in the production of welded structures from metallic materials in the field of mechanical engineering.

2. Course learning outcomes

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

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

be able to:

- to prepare and conduct classes for students in the field of innovative technologies in mechanical engineering, to manage research work;
- develop practical recommendations for using the results of scientific research, planning and conducting experimental research;
- evaluate the technical and economic feasibility of using specific innovative methods of welding, cutting and hardening of metals.

to possess skills:

- processes of development of welding technologies, improvement of their quality, automation of technological processes, application of computer technologies;
- a method for determining the technological parameters of welding, cutting and hardening using modern equipment in accordance with state standards.

3. Competencies

SC-1 Be able to acquire new knowledge in the production and technological field of welding production, using modern information technologies

4. Form of midcourse evaluation.

The following forms are used to diagnose competencies:

- oral;
- written;
- oral and written.