

FINITE ELEMENT METHODS OF COMPUTING WELDED STRUCTURES
(name of the discipline)

ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-36 80 02 “Innovative technologies in mechanical engineering”

Direction of specialty _____

Specialization _____

	Form of higher education	
	Full-time (Day)	Part-time
Course	1	1
Term	2	2
Lectures, hours	32	8
Practical (seminar) classes, hours	16	4
Credit, semester	2	2
Classroom hours for the academic discipline	48	12
Independent work, hours	60	96
Total hours of academic discipline / credits	108/3	

1. Summary of the academic discipline

The purpose of the discipline is to provide students with knowledge in the field of calculations of welded structures and welded joints based on finite element methods.

2. Learning outcomes

As a result of mastering the discipline, the student must

know:

- basic finite element calculation methods;
- the main stages of solving the FEM problem;
- basic principles of operation in software products that perform FEM calculations.

be able to:

- to choose software for solving problems solved with the help of FEM;
- apply the acquired knowledge in practice by performing the necessary calculations;
- analyze stress, strain, displacement and thermal fields.

own:

- FE calculation skills;
- knowledge to make the necessary decisions when using the FEM.

3. Emerging competencies

SK-3 - Be able to analyze the prospects and directions of development of welding production, master the achievements of science in the field of welding.

4. Requirements and forms of current and interim certification

When studying the discipline, a modular rating system for assessing knowledge is used. The evaluation tools used for the academic discipline are stored at the department.