"DEVICES FOR PROCESSING MATERIALS"

ANNOTATION
TO THE CURRICULUM OF A HIGHER EDUCATION INSTITUTION

Specialty 1-36 01 04 – "Equipment and technologies of highly efficient material processing processes"

	Form of higher education
	Full-time (day)
Course	3, 4
Term	6, 7
Lectures, hours	50
Laboratory classes, hours	16
Term paper, semester	7
Exam, semester	6
Classroom hours for the academic discipline	66
Independent work, hours	42
Total hours of academic discipline / credits	108/3

1. Summary of the academic discipline

The purpose of the discipline is for students to study the theoretical foundations, calculation principles and design methods of various devices and auxiliary tools. This will allow them to consciously and creatively create workable and high-performance technological equipment. The increase in productivity and product quality in mechanical engineering is associated with the improvement of existing and the design of new, progressive technological equipment for mechanical assembly production. Properly designed and manufactured technological equipment is an effective means of reducing the cost of products and ensuring the safety of workers.

2. Learning outcomes

A student who has studied the discipline should know:
- fundamentals of the theory of basing and principles of installation of workpieces in devices;
- methods of designing various types of devices;
-types and design features of devices for various types of machining;
- methods of power calculation of devices;
- the procedure for the economic justification of the feasibility of using technological equipment.

A student who has studied the discipline should be able to:
- design adaptations for various types of processing and assembly;
- correctly use the recommendations of reference books, engineering norms and standards;
- to ensure the required accuracy of the workpiece processing in the device;
- if necessary, provide mechanization to the automation of the device;
- evaluate the effectiveness of the device, its condition during operation;
- to conduct an economic justification of the choice of the device design.

A student who has studied the discipline must possess:
- methods of calculation and design of technological equipment in accordance with the tasks set;
- skills in using reference literature and standards;
- the skills necessary to independently solve problems in the field of technological equipment design both when performing course and diploma projects, and in his future professional activity.

3. Formed competencies

Codes of formed competencies	The names of the competencies being formed
SK -4	Be able to apply modern methods of obtaining blanks, manufacturing devices and processing machine parts in technological design

4. Requirements and forms of current and interim certification

The current and intermediate certification are carried out in written and oral-written form through the protection of laboratory work, control work, course work; passing the exam.