MANUFACTURING ENGINEERING

ANNOTATION

TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-36 01 01 «Technology of mechanical engineering

	Form of higher education		
	Full-time (daytime)	Correspondence	Correspondence Short
Course	3,4	4, 5	3, 4
Semester	6,7,8	8, 9	6, 7, 8
Lectures, hours	118	14	20
Practical (seminar) classes, hours	68	2	12
Laboratory classes, hours	32	10	8
Course project, semester	8	9	8
Exam, semester	6, 7	8,9	6,7
Classroom hours in the academic discipline	218	26	40
Independent work, hours	128	320	306
Total academic hours / credits	346/9		

1 Synopsis of the discipline

The discipline "Technology of Mechanical Engineering" contains information about the methods of designing effective technological processes of machining and assembling machines.

2. Learning outcomes

As a result of the development of the academic discipline, the student must

To know:

- technical capabilities of various methods of machining machine parts;
- methods of treatment of the main surfaces and parts of machines;
- electrophysical and electrochemical methods of machining machine parts;
- methods of assembling typical connections of machine parts;
- methods of organizing the assembly of machines, ensuring and controlling its quality.

can:

- choose methods of machining individual surfaces and parts as a whole, ensuring the necessary product quality and efficiency of processing processes;
- rationally use the possibilities of electrophysical and electrochemical methods of processing;
- to design the processes of nodal and general assembly of machines, providing the necessary quality and cost of production, high labor productivity.

possess:

- methodology for designing technological processes for manufacturing parts and assembling machines, ensuring an innovative level of their processes and high production efficiency;
- information about modern methods of processing and assembly of machines, prospects for their development;
- skills in the use of modern equipment, tooling, automation and mechanization of the main and auxiliary processes in the design of the technology of manufacturing parts and assembling machines.

3 Competencies to be formed

The development of this academic discipline should ensure the formation oftheir next competencies.:

SK-5 Be capable of choosing methods for obtaining blanks of machine parts, developing drawings of blanks, choosing methods for processing blanks, necessary equipment and tooling, calculating allowances, cutting modes, the number of machines and their loading, conducting dimensional calculations of technological processes.

SK-5.2 Know the methods of assembling the main types of connections of machine parts, processing typical surfaces and machine parts, their modes and technological capabilities, be able to design technological processes for processing parts and assembling machines, draw up technological documentation of these processes.

4. Requirements and forms of current and intermediate certification

Current and intermediate certification is carried out in written and oral-written form through tests, reports on laboratory work with their oral defense, tests, written examinations.