

TECHNOLOGY OF AUTOMATED MANUFACTURE OF PARTS AND ASSEMBLIES
ANNOTATION

TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-53 01 01 Automation of technological processes and production (by directions)

	Form of higher education
	Full-time (daytime)
Course	3, 4
Semester	6, 7
Lectures, hours	118
Practical (seminar) classes, hours	52
Laboratory classes, hours	32
Course project, semester	8
Exam, semester	6, 7
Classroom hours in the academic discipline (including hours for guided independent work)	202 (8)
Independent work, hours	144
Total academic hours / credits	346/9

1 Synopsis of the discipline

The discipline "Technology of automated manufacture of parts and assemblies" contains information on the methods of designing effective technological processes of machining and assembling machines in conditions of automated production.

2. Learning outcomes

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

To know:

- methods of treatment of various surfaces of machine parts;
- design features of technological processing processes on automatic lines, machine tools and CNC machine tools;
- principles of adaptive control of the form-making process;
- automatic control of machining and assembly accuracy;

can:

- to develop new and improve existing technological processes for processing parts, and assembling machines;
- apply in practice modern systems of automation of design of technological processes of devices and cutting tools;
- perform the formulation of the task for the modification of existing and the creation of new CAD systems, develop measures to improve them;

possess:

- features of the design of technological processing processes on automatic lines, machine tools and CNC machine tools;
- principles of adaptive control of the form-making process;
- methods of automatic control of the accuracy of processing and assembly.

3 Competencies to be formed

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

SK-12 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-12.2 To know the methods of assembling the main types of connections of machine parts, processing typical surfaces and machine parts, their modes and technological capabilities, to be able to design technological processes for processing parts and assembling machines, to 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.