

## TECHNOLOGY OF MANUFACTURING MECHANICAL ENGINEERING PRODUCTS

(name of the academic discipline)

**Specialty:** 6-05-0722-05 – Production of products based on three-dimensional technologies

	Form of higher education
	Full-time (day)
Course	1,2
Semester	2,3
Lectures, hours	50
Laboratory classes, hours	50
Classroom control work (semester, hours)	2
Credit, semester	3
Classroom hours in the academic discipline	100
Independent work, hours	188
Total hours of academic discipline / credits	288/8,0

### 1. Summary of the discipline:

The purpose of the discipline is to assimilate students' knowledge about the structure and properties of metals, alloys and other structural materials, as well as about the methods of obtaining and processing them to obtain parts with specified properties and configuration.

### 2. Learning outcomes:

As a result of mastering the discipline, the student should

**know:** the essence of the methods of basic technological methods for obtaining blanks by casting, pressure treatment, powder metallurgy, welding, machining by cutting and other methods; the economic feasibility of using various technological methods and methods of forming and processing parts, blanks; basic work schemes technological equipment (machine tools, machines, automatic machines, etc.), tools, devices and accessories, their purpose and application.

**be able to:** choose and justify a rational set of methods for shaping and processing blanks and machine parts; develop a technological form of the workpiece based on the material and shape of the part; evaluate the technical and economic efficiency of the selected technological process.

**to possess a skill:** methods of selecting the workpiece of a part, taking into account its purpose, shape, material; information about the possibilities of various methods of machining machine parts; possess information about the operation schemes of various types of technological equipment in mechanical engineering.

### 3. Competencies:

SK-14: To know the basic technological processes of shaping products for structural purposes, the theoretical foundations of the processes taking place. Methods of calculation of theoretical parameters of processes.

### 4. Requirements and forms of current and interim certification.

Evaluation tools used: test tasks for the protection of laboratory work, test tasks for passing the exam.

Forms of diagnosis: oral, written.