DESCRIPTION OF THE DISCIPLINE

1. PROGRAM
15.03.01 ENGINEERING

2. QUALIFICATION (DEGREE)
Bachelor
2 Qualification (degree): Mining Engineer

3. DEPARTMENT
Department «**Engineering technology**»

4. Number of hours:

Lectures	32
Practice:	24
Labs	24
Self-study	100
Total	**180**

5. GOALS AND OBJECTIVES OF THE DISCIPLINE

The discipline is aimed at students' acquiring a system of knowledge and skills in the field of the physical basics of the cutting process, regularities of cutting tools wear and destruction, problems of designing and maintenance of cutting tools, peculiarities of production technology of the basic tool types.

6. CONTENT OF THE DISCIPLINE

Content:

Section 1. Basic notions and definitions.
Section 2. Deformations and stresses when cutting.
Section 3. Thermal processes when cutting.
Section 4. Regularities of tool wear and destruction.
Section 5. Quality of machined surface.
Section 6. Cutting modes. Principles of choosing a cutting mode.
Section 7. Machinability of materials by cutting.
Section 8. Regularities of boring, milling and polishing processes.

7. LECTURER: Doctor of Technical Sciences, Professor Petrushin S.I.