DIMENSIONAL ANALYSIS OF TECHNOLOGICAL PROCESSES

(name of discipline)

ANNOTATION
TO THE CURRICULUM OF THE INSTITUTION OF HIGHER EDUCATION

Specialty 1-36 01 01-Technology of Mechanical Engineering

	STUDY MODE		
	full-time	part-time	part-time (shortened program)
Year	4	5	4
Semester	8	9	7
Lectures, hours	18	4	4
Practical classes (seminars), hours	18	4	4
Pass/fail, semester	8	9	7
Contact hours	36	8	8
Independent study, hours	64	92	92
Total course duration in hours / credit units	100/3	100/3	100/3

1 Course outline

The discipline "Dimensional analysis of technological processes" contains general ideas about the theoretical and practical knowledge of the correct and reasonable determination of the operational dimensions and tolerances of machined workpieces on the basis of dimensional analysis.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

- basic concepts in the field of design and technological dimensional relationships, methods of their identification and verification;
- tasks and methods of calculating dimensional chains, the scope of their application;

be able to:

- make technological and design dimensional chains, graphs of dimensional relations, determine the accuracy of closing links;
- choose methods for calculating dimensional chains.

possess:

- methods of construction and calculation of dimensional chains.

3 Competencies

Mastering this training discipline should ensure the formation of the following competence: SK-5. To be able to select methods of obtaining blanks for machine parts, development of drawings of blanks, the choice of methods of processing blanks, necessary equipment and tooling, calculation of allowances, cutting modes, the number of machines and their load, conducting dimensional calculations of technological process;

SK-5.3 Know the basic concepts in the field of structural and technological dimensional relationships, methods of their identification and verification, tasks and methods of calculation of dimensional chains.

4 Requirements and forms of midcourse evaluation and summative assessment

Current and interim evaluations are conducted in written form through tests, quizzes, and written credit.