

FUNDAMENTALS OF CONTINUUM MECHANICS

(name of the discipline)

ANNOTATION

TO THE CURRICULUM OF A HIGHER EDUCATION INSTITUTION

Specialty 1-36 07 02 "Production of products based on three-dimensional technologies"

	Full -time (full-time)	Correspondence
Course	2	3
Semester	4	6
Lectures, hours	16	6
Laboratory classes, hours	16	4
Credit, semester	4	6
Classroom hours in the academic discipline	32	10
Independent work, hours	76	98
Total hours of academic discipline / credits	108/3	108/3

1. Summary of the academic discipline

The discipline contains the basic concepts, laws and methods of continuum mechanics.

Students get acquainted with the most important sections of continuum mechanics and its application to solve practical problems. The discipline examines the basic concepts of continuum mechanics. The main methods and algorithms for solving problems are demonstrated. Practical skills necessary for the rational use of continuum mechanics methods in solving engineering problems are acquired;

2. Learning outcomes

to know:

– the role and place of continuum mechanics in the design of structures; basic equations and methods of continuum mechanics; basic models of continuum mechanics: elastic body model, ideal plastic body model; methods for solving problems of continuum mechanics;

be able to:

– model and solve problems of continuum mechanics; independently understand the information contained in the literature on strength issues.

possess:

– methods and algorithms for solving engineering problems of predicting the behavior of materials and structures; methods and methods of solving problems of continuum mechanics.

3. Formed competencies

SK-16 To know the basic concepts, conservation laws and equations of continuum mechanics, classical models and properties of continuums

4. Requirements and forms of current and interim certification

TOL – test survey at the lecture;

ZLR – protection of laboratory work;

PKU – intermediate control of academic performance;

TA is the current certification.

TEST

Score	Credited	Not credited
Scores	51-100	0-50