FUNDAMENTALS OF CONTINUUM MECHANICS
(course title)

COURSE SYLLABUS ABSTRACT

6-05-0722-05 Manufacturing of products based on three-dimensional technologies
(speciality code and name)

	full-time
Course	**3**
Semester	**5**
Lectures, hours	**34**
Laboratory classes, hours	**34**
Credit, semester	**5**
Guided independent study, hours, type/ semestr	**68**
Independent study, hours	**40**
Total course duration in hours / credit units	**108/3**

1. Course outline

The discipline examines the basic concepts, models, and methods for solving continuum problems. Students acquire practical skills necessary for the environment when solving engineering problems.

2. Course learning outcomes

Upon completion of the course, students will be expected to

know:

– the role and place of continuum mechanics in structural design;

– basic equations and methods of continuum mechanics;

– basic models of continuum mechanics: elastic body model, ideal plastic body model;

– methods for solving continuum mechanics problems;

be able to:

– model and solve problems of continuum mechanics;

– independently understand the information contained in the literature on strength issues.

to possess a skill:

– knowledge of methods and algorithms for solving engineering problems predicting the behavior of materials and structures;

– knowledge of methods and methods of solving problems of continuum mechanics.

3. Competencies

Apply continuum mechanics methods to model shaping processes and mechanical behavior of structural materials

4. Requirements and forms of midcourse evaluation and summative assessment

When studying the discipline, a modular rating system is used to evaluate students' knowledge. The forms of classes in the study of various topics of the course: traditional and multimedia.