1.1.8. Mechanics of a deformable solid

Уровень Training level: postgraduate study
Form of training: full-time job
Duration of training: 4 years old
Group of scientific specialties: *мathematics and mechanics*
Number of seats: 2 (budget)

The term of obtaining full-time education in the postgraduate program of the scientific specialty 1.1.8 Deformable solid Mechanics, including holidays provided after passing the state final certification, regardless of the educational technologies used, is 4 years. The volume of the full-time postgraduate program implemented in one academic year is 60 z. e.

Educational activities under the postgraduate program are carried out in the state language of the Russian Federation.

Deformable solid mechanics is a field of science and natural science that deals with research, development of scientific foundations, improvement of the theory and practice of strength assessment of various mechanical systems, accounting for changes in the physical and mechanical properties of materials during their operation in order to improve methods for assessing the stress-strain state of the structures and engineering structures under consideration.

Name of the branch of science in which присуждаются academic degrees are awarded:
Physical and Mathematical Technical
Specifications

Направления Research areas:

1.Laws of deformation, damage and destruction of materials, в including natural, artificial and newly created ones.

2.Theory of determining relations of deformable bodies with simple and complex structures.

3.Problems теории упругости, of elasticity theory , plasticity theory , and viscoelasticitytheory.

4.Mechanics of composite materials and structures, ммechanics of intelligent materials

5.Mesomechanics of multilevel environments with structure.

6.Micromechanics, nanomechanics, mechanics of discrete media.

7.Mechanochemistry, theory of structural and phase transitions in твердых solids.

8.Dynamics деформируемого of a deformable solid. Theory of wave processes in media of various structures.

9. Stability процессов of deformation processes.

10.Strength under complex loading conditions. Theory of damage accumulation. Mechanics of destruction of solids.

11.Mathematical modeling of the behavior of discrete and continuous deformable media under mechanical, thermal, electromagnetic, chemical, gravitational, radiation and other influences.

12.Computational mechanics деформируемого of a deformable solid.

13.Experimental methods for studying the processes of deformation, damage and destruction of materials, including objects undergoing phase structural transformations under external influences.