

Mechanics and Mathematical Modeling

Novosibirsk State University

Degree or qualification is awarded: **Bachelor of science in Mechanics and Mathematical Modeling**

Language of study: **Russian**

Mode of study: **full-time**

Duration: **4 years**

Availability of free education: **yes**

Price: **4 500 USD per year**

Programme webpage at the university website: https://education.nsu.ru/department_mechanics_mathematics_english/

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The program in Mechanics and Mathematical modeling focuses on the study of the following problems: numerical methods in continuum mechanics;

- hemodynamics, the study of blood flow characteristics in the body;
- application of mathematical methods and mathematical modeling in scientific research;
- mechanics of liquids, gas and plasma (shipbuilding, aviation, space flights);
- solid state mechanics (mechanics of composites, mechanics of geomaterials, elasticity theory, cracking theory);
- investigation of transfer processes in microgravity and on the micro scale;
- simulation of the motion with phase transitions;
- theory of gravity and thermal convection thermocapillary;
- flows in porous media (oil and gas);
- dynamics of viscous plastic fluid (drilling wells, avalanches);
- numerical simulation of the interaction between elastic structures with fluid (the wave interaction, for example, of bridges).

Specializations within this programme