

Applied mechanics



Field of professional activity:

Graduates who have mastered this field of training can carry out their work in the following areas:

- End-to-end professional activities in industry in the field of ensuring the necessary dynamics, strength, stability, rational optimization, durability, resource, survivability, reliability and safety of machines, structures, composite structures, structures, installations, aggregates, equipment, instruments and equipment and their elements.
- Professional standard
- Specialist in research and development

Graduates can hold the following positions:

- mechanical engineers;
- mechanical engineering technologists;
- heads of departments (services) of scientific and technical development

in:

- production of motor vehicles, trailers and semi-trailers;
- manufacture of other vehicles and equipment;
- production of other finished products;
- maintenance and repair of motor vehicles;
- land transport activities;
- technical tests, research, analysis and certification.

Our partners are companies for employment and internship:

- JSC NPP KP "Kvant";
- JSC "RERZ";
- NEVZ LLC;
- JSC "RUSSIAN Railways";
- JSC "TransRemPutmAsh";
- JSC "TransContainer";
- JSC "Klyuch-avto";
- JSC "RostSelmAsh", etc.

In the course of training, disciplines will be studied:

- Computational mechanics and computer engineering;
- Protection of intellectual activity;
- Innovative approaches to the design support of scientific projects;
- Innovative approaches to improving the reliability of mechanical systems
- Foreign language (academic and professional interaction);
- Information technology;
- Mathematical modeling;
- Modeling of thermophysical processes in tribosystems;
- Fundamentals of computer-aided design of CAD/CAM/CAE systems;
- Fundamentals of measurement of physical quantities, their digital processing and statistical analysis;

- Fundamentals of research activities;
- Evaluation of dynamics and strength in the design of machines;
- Design support of scientific research;
- Professional self-determination and team management;
- Russian language and editing basics;
- Modern methods of deformable solid mechanics;
- Feasibility study of projects;
- Physical and mathematical modeling and mechatronics of machines