Computational Mechanics and Computer Engineering

National Research Tomsk State University

Degree or qualification is awarded: **Master's degree**

Language of study: **Russian**
Mode of study: **full-time**
Duration: **2 years**
Availability of free education: **no**
Price: **201 500 RUB per year**

Programme webpage at the university website:
https://ftf.tsu.ru/abiturientu/vychislitelnaya-mehanika-i-kompyuternyj-inzhiniring/

Programme curator: **Vladimir A. Skripnyak**
Tel.: **+7 (382) 252-98-45**
E-mail: skrp@ftf.tsu.ru

The programme offers training of specialists with expertise in:

- Theoretical, computer and experimental study of scientific and technical problems, solving problems of applied mechanics – problems of dynamics, strength, stability, rationalization, durability, resource, longevity, robustness and safety of machinery, constructions, composite structures, devices, equipment and their elements;
- Application of IT, computer mathematics systems, finite element analysis and computational fluid dynamics technologies, high computer technologies – automated design systems, CAD systems, CAE systems, Simulation-Based Design and Digital Mock-Up technologies;
- Mechanics of contact interaction problems, interaction damage and destruction; problems of tribology, robustness of machinery.
- Project management, quality management, high-tech innovations management, marketing, strategy and innovations management, entrepreneurship in high-tech; organization of activities by scientific and industry divisions working on new machinery, technologies and high-tech.

Research and internships are performed at the premises of several TSU science labs, labs of Institute of Strength Physics and Materials Science (Siberian branch of RAS) and leading research labs of TSU Research Institute of Applied Mathematics and Mechanics.

After graduation the alumni may continue their education as PhD-students in leading research universities of the Russian Federation and Research Institues of the Russian Academy of Sciences.

Admission is competitive, students with Bachelor’s degrees or higher are eligible. The admission tests are an interdisciplinary exam and an interview.

The interdisciplinary test includes questions in the following subjects: theoretical physics, connected issues in mathematics and mathematical physics, elasticity, theory of plasticity and creep, mechanical systems stability and computational mechanics.

Specializations within this programme