Master of Science Program
Advanced Manufacturing Technologies

Curriculum:

Compulsory & Recommended Courses

120 ECTS-credits

- 36 Compulsory & Recommended Courses
- 12 Entrepreneurship & Innovation
- 12 Industrial Immersion
- 36 Elective Courses & Projects

Compulsory courses

- Introduction to Advanced Manufacturing Technologies
- Continuum Mechanics
- Mechanics and Physics of Advanced Manufacturing
- Introduction to Product Lifecycle Management (PLM)

Recommended Electives

- Mathematics for Engineers
- Geometric Modeling
- Advanced Manufacturing of Composite Materials
- Materials Chemistry
- Structural Analysis and Design
- Numerical Methods in Engineering and Science
- Materials Selection in Design
- Additive Manufacturing
- Thermal Fluid Sciences
- Composite Materials and Structures
- Numerical Methods in Continuum Mechanics
- Industrial Robotics
- Advanced PLM techniques: Digital Design and Optimization
- Micromechanics
- Advanced PLM techniques: Product Prototyping
- Advanced PLM techniques: Testing and Model Validation
- Heterogeneous Volume Modeling and Digital Fabrication
- Fracture Mechanics

Entrepreneurship & Innovation

- Innovation Workshop
- Ideas to Impact
- Leadership for Innovators
- Business Communication
- Thinking Disruptive for a Big Future
- Biomedical Innovation and Entrepreneurship
- Intellectual Property and Technological Innovation
- New Product Design: from Idea to Market Launch
- Management of Research & Development
- Technology Entrepreneurship

Elective Courses

See at the Skoltech Course Catalogue:
skoltech.ru/en/education/course-catalogue