

The Ministry of Science and Higher Education of the Russian Federation

Tambov State Technical University

# Curriculum

**Bachelor's Degree**

*15.03.06 Mechatronics and Robotics Technology*

*Direction "Information and Sensory Systems in Mechatronics"*

*Full-time (4 years)*

Philosophy
History
Social Psychology
Russian Language and Culture of Communication
Foreign Language
Safety of Human Activity
Law
Ecology
Higher Mathematics
Physics
Chemistry
Engineering Graphics
Theoretical Mechanics
Resistance of Materials
Theory of Mechanisms and Machines
Parts of Machines
Materials Science and Technology of Structural Materials
Fundamentals of Electrical Engineering and Electronics
Metrology and Standardization
Computer Science and Fundamentals of Artificial Intelligence
Computer Systems for Preparation of Documentation
Software for Mechatronic and Robotic Systems
Modeling of Mechatronic and Robotic Systems
Network Interaction of Mechatronic Systems Components
Digital Control Units of Mechatronic Devices
Vision Systems
Artificial Intelligence in Robotics
Introduction into Profession
Project Work in Professional Activity
Theory of Economics
Branch Economics and Management
Physical Training and Sport
Fundamentals of Scientific Research
Applied Mathematics
Fundamentals of Measurements in Mechatronics
Theory of Automated Control
Circuitry of Mechatronic Devices
Drives of Robots and Mechatronic Devices

Conformity Assessment and Quality Management
Organization of Mechatronic Systems Tests
Design and Operation of Mechatronic Systems
Basic Robotic Platforms
Information-sensor Systems and Devices in Mechatronics and Robotics
Planning and Organization of Experiment
Elective Disciplines in Physical Training and Sports
<b>Training Practice</b>
<b>Observing Practice</b>
<b>Enterprise Practice</b>
<b>Operational Practice</b>
<b>Scientific and Research Work</b>
<b>Pre-Diploma Practice</b>
<b>Final State Examination</b>
<b>Final Qualification Project</b>
<b>Optional Disciplines:</b>
Management Skills
Cross Skills
Forming Civil Position
Applied Mathematics