

**11.03.03 Electronic Instrumentation  
Design and Technology**

Degree: *Bachelor*

Program length and study mode: *4 years, full time*

Language: *Russian*

Credits: *240 ZET*

Start date: *01.09.2020*

Location: *347922, Russia, Taganrog, Shevchenko, 2*

Entry requirements: *Admission to full-time education for school graduates in the undergraduate program on a budgetary and contractual basis is carried out according to the results of the unified state examinations or entrance examinations conducted by SFedU:*

*- Russian language (minimum score 55);*

*- Mathematics (minimum score 50);*

*- Physics (minimum score 51).*

**Program overview:**

The area of professional activity of bachelors of the program 11.03.03 “Design and technology of electronic devices” includes research, design, construction and technology of large integrated circuits and microsystems of electronic computing and electronic devices for various purposes that meet the goals of their functioning, reliability requirements, design, conditions operation; mathematical and computer modeling of physical processes occurring in functional elements and components.

**Program structure:**

The educational program is built on a modular basis and includes:

Unit 1. "Disciplines (modules)" (210 ZET) - basic (103 ZET) and variable (107 ZET) parts.

Unit 2. "Practical training, including research work" (24 ZET).

Unit 3. "State final certification" (6 ZET).

**Typical units of study may include:**

- Methods of mathematical modeling;
- Information technology design of electronic devices;
- Mathematical foundations of discrete technology and control of technical systems, etc.

**Careers:**

Plant ISTOK named after Shokin, Fryazino; Plants Gradient and Quantum, Rostov-on-Don; Scientific-Design Bureau of Computing Systems, Company "Beriev Aircraft", Taganrog Research Institute of Communications, MIUS SFedU, Taganrog; Azov Optical and Mechanical Plant and etc.

**Get in touch:**

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	<p><b>Research areas:</b></p> <ul style="list-style-type: none"><li>• The elemental base of micro- and nanosystem technology;</li><li>• Design methods for large integrated circuits and microsystems;</li><li>• Development and research of the theoretical foundations of energy-generating structures based on micro- and nanotechnologies;</li><li>• Methods for sapphire crystals growing and making substrates for microelectronics from them</li></ul>	
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