Information Systems and Technologies in Geodesy and Cartography

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: **223 700 RUB per year**

Programme webpage at the university website: http://ff.tsu.ru/node/1887

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The objectives of the programme are:

1. to help students develop skills in development and application of information systems in geodesy and cartography to accelerate the transition to the cutting-edge industrial technologies of using satellite information systems for problems of geodesy and geodynamics, such as GLONASS and GPS, which use modern GIS in processing the results of geodetic measurements, and for problems of cartography;

2. to train engineers in development and application of information systems in geodesy and cartography.

Programme contents

- Research and Simulation Methods for Information Processes and Technologies.
- System Engineering.
- Information Systems Reliability.
- GIS-technologies and Satellite Navigation Systems.
- Methods of Geospatial Data Processing.
- Multimedia technologies and their application in GIS.
- Methods of Dynamics in Satellite Systems

Practical training in Geodesy is performed using geodesical equipment: 12 2T-30 transit instruments; 12 N3 geodetic levels; a tachymeter; laser electronic distance meter; 10 portable GPSmap 60cxGarmin GPS receivers; an electronic tachymeter and 2 high-precision Topcon GPS/GLONASS receivers.

TSU has developed accessible infrastructure of high-efficiency calculations for students that includes the SKIF "Cyberia" supercomputer, Centre of Data Processing, computer network.

Career

Masters who completed the "Information Systems and Technologies in Geodesy and Cartography" programme (09.04.02 "Information Systems and Technologies") are trained to perform the following types of professional activity:

- design and engineering;
- organization and management;
- research;
- innovation;
- maintenance.

Admissions

Admission is competitive, students with Bachelor’s degrees or higher are eligible. A candidate is to pass the following entrance examinations: an exam in the major and an interview.

Specializations within this programme