Admission Prerequisites

The right to study in the doctoral educational programme is granted to a person who holds a Master's qualification or an equivalent academic degree in the field of Engineering, Manufacturing and Construction (07) or in the field of Natural Sciences, Mathematics and Statistics (05).

A candidate wishing to enrol in the programme must submit:

1. A research project outlining the applicant's research aim and direction;
2. A relevant international certificate confirming knowledge of English at no lower than B2 level, or successfully pass a B2-level English language test organised and administered by GTU. A candidate who has completed a recognised English-language educational programme at any level of higher education is not required to pass the examination or present a certificate (completion of an English-language programme is confirmed by the relevant qualification document, i.e. a diploma);
3. Document(s) confirming previous work/publications in the relevant field and/or participation in scientific research projects and events and/or at least 2 years of work experience in the relevant field;
4. Other documentation/information predetermined by the University on the basis of the Regulations on Doctoral Studies of the LEPL Georgian Technical University.

A candidate whose submitted documentation fully meets the formal requirements is interviewed by the Temporary Faculty Commission. In accordance with the procedure established by the legal acts of GTU, the Temporary Faculty Commission ensures the assessment of persons wishing to be admitted to the programme in compliance with the principles of objectivity, fairness and transparency. Consideration is given to the assessment of the candidate's experience and abilities necessary for the successful completion of the doctoral educational programme, including (where available) the candidate's scientific publications, experience of participation in scientific conferences, and other documents and materials related to teaching/research activities (certificates, diplomas, patents, etc.).

Full information on the rules of admission to doctoral studies and the conditions of enrolment, as well as sample(s) of the English language examination tests, is available on the official website of the University. https://gtu.ge/apply/phd.php/

Enrolment in the programme through mobility is possible twice a year, within the time frames set by the Ministry of Education, Science and Youth of Georgia, in compliance with the conditions and rules defined by the legislation of Georgia and the legal acts of GTU.

Enrolment in the programme from a recognised higher education institution of a foreign country is carried out in accordance with the procedure established by the legislation of Georgia.

Programme Goal

The goal of the doctoral programme is to prepare researchers equipped with knowledge based on the latest achievements in the field of engineering geodesy and geoinformatics and with the skills to use modern research methods and technologies, oriented towards developing original ideas and practical activities, as well as pedagogical work:

- For performing high-precision measurements;
- For creating databases of digital thematic information;
- For the analysis, synthesis and evaluation of geodetic data.

Learning Outcomes/Competences (General and Professional)

- On the basis of knowledge founded on the latest achievements, describes geodetic networks and the methods of their processing, observations of the deformation of structures, the principles of the theory of least squares, the global goals of sustainable development, and the use of the capabilities of geographic information systems;
- Plans innovative research oriented towards the creation of new knowledge, as well as the collection and processing of the related statistical materials;
- Building on the latest achievements of GIS technologies, conducts interdisciplinary and empirical research and the process of determining the positions of points of underground and surface networks;
- Evaluates knowledge based on the latest achievements in the field of engineering geodesy and geoinformatics (at the level of the standard required for peer-reviewed publication);
- Optimises land-use monitoring schemes using innovative methods, carries out the adjustment of horizontal and vertical control networks, and evaluates geodetic network designs for hydraulic structures;
- Solves issues of geodata acquisition, processing and interpretation in the field of engineering geodesy and geoinformatics;
- Applies innovative methods in research in engineering geodesy, mine surveying and cartography;
- In compliance with the principles of academic integrity and taking into account innovative methods based on the latest achievements in the field, prepares presentations and written information in the field of engineering geodesy and geoinformatics;
- In compliance with the principles of academic and supervisory integrity, independently implements innovative research projects based on the latest technological achievements in the field of engineering geodesy and geoinformatics.

Student Knowledge Assessment System

Assessment is carried out on a 100-point scale.

Assessment of the study component:

Positive grades are:

- **(A)** – Excellent – 91–100 points;
- **(B)** – Very good – 81–90 points;
- **(C)** – Good – 71–80 points;
- **(D)** – Satisfactory – 61–70 points;
- **(E)** – Sufficient – 51–60 points.

Negative grades are:

- **(FX)** – Did not pass – 41–50 points, which means that the student needs more work to pass and is given the right to sit an additional examination once after independent work;

(F) – Failed – 40 points or less, which means that the work carried out by the student is not sufficient and the subject must be studied anew.

If FX is received, an additional examination is scheduled no earlier than 5 days after the announcement of the results. The grade obtained in the additional examination is not added to the points received in the final assessment.

Assessment of the scientific research component/components:

a) Excellent (summa cum laude) – an outstanding piece of work;

b) Very good (magna cum laude) – a result that exceeds the set requirements in every respect;

c) Good (cum laude) – a result that exceeds the set requirements;

d) Average (bene) – a piece of work of average level that meets the basic set requirements;

e) Satisfactory (rite) – a result that, despite shortcomings, still meets the set requirements;

f) Unsatisfactory (insufficient) – a piece of work of unsatisfactory level that does not meet the set requirements due to significant shortcomings;

g) Completely unsatisfactory (sub omni canone) – a result that completely fails to meet the set requirements.

The research component is assessed once, at the stage of the defence of the dissertation, by a final assessment.

The study and research components of the doctoral educational programme and the rules for their assessment are available on the University website:

https://www.gtu.edu.ge/uploads/2026/03/edu-research-components.pdf

Subject	**Credits**
Scientific Communication Techniques	4
Research Methods in Engineering Geodesy	5
Teaching Methods	6
Mine Surveying Operations in Mineral Extraction	5
Theory of Mathematical Processing of Geodetic Measurements	10
Professor's Assistantship	10
Sustainable Development and Geographic Information Systems	5
Elective Courses (5 credits to be chosen)	
Land Administration	5
Research of Hydraulic Structures Using Geodetic Methods	
Total	**50**