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 and who meets the requirements for admission to doctoral studies in accordance with the rules established at GTU.

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 by way of 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 programme is:

• To prepare scientific and teaching staff equipped with knowledge based on the latest achievements in the field of occupational health and safety, in order to solve the highly complex problem of developing methods of protection against industrial risks and technogenic hazards, which is related to the organisational and technical issues of occupational health and safety at work.

• To implement research projects using innovative methods that comply with international standards in order to solve complex problems related to the development of occupational risks, and to develop original ideas for ensuring industrial safety, minimising negative environmental consequences and ensuring individual safety.

• To critically evaluate existing safety concepts and theories, and to plan, develop and improve a holistic safety management system for the needs and challenges of a specific working environment.

Learning Outcomes/Competences (General and Professional)

• Discusses occupational safety concepts and theories, national and international standards, technical regulations, the principles of assessing working conditions, the rules and regulations for action in emergency situations, and new, original ways of solving problems arising in the field of organisational and technical safety of the object of research;

• Through a critical understanding of the field of occupational safety, determines the measures to be implemented at a specific workplace;

• Using innovative methods and depending on the specifics of the situation, reasons about ways of eliminating potential industrial risks and hazardous factors;

• Under conditions of complex or incomplete information, identifies the hazards of the industrial environment and validates the results of experimental research methodology and integrated data.

• Summarises the expected consequences caused by technogenic hazards, the risk factors of industrial safety violations, the level of their impact on humans, and the psychological and biological effects that influence the safety of the occupational environment;

• Plans the industrial safety management strategy, measures to reduce industrial risk factors, and, on the basis of the analysis of technogenic emergencies, major industrial accidents and disasters, measures for their prevention, localisation and elimination;

• Evaluates the measures to be implemented in order to normalise the situation, the sanitary and hygienic conditions of work, the expected risks and the reliability of the fire safety system, and the effect of exposure to harmful factors, and selects ways of reducing them to the maximum permissible level;

• Develops new research and analytical methods for ensuring occupational safety and healthy working conditions, recommendations for providing comfortable conditions in the working environment, innovative methods for forecasting and assessing industrial risks, and reliable management systems.

• In compliance with the principles of academic integrity and taking into account innovative methods based on the latest achievements of the field in interdisciplinary research, prepares research projects in the field of occupational safety and health.

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 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 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 dissertation defence, by a final assessment.

The study and research components of the doctoral educational programme and the rules for their assessment are published 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 Mining	5
Teaching Methods	6
Mineral Processes	5
Special Methods of Mineral Deposit Development	5
Transient Modes of Pressure Hydraulic Transport Systems	5
Professor's Assistantship	10
Modern Methods of Computer-Based Research of Mining Technological Processes	5
Elective Courses (5 credits to be chosen)	
Modern Methods of Mine and Underground Construction	5
Optimisation of Mineral Processing	
Transient Processes in Mining Electromechanical Systems	
Total	**50**