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) and who meets the requirements for enrolment in doctoral studies in accordance with the rules in force 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 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 in Mining Technologies is to prepare a teaching-oriented researcher equipped with the latest knowledge related to the design of the development of solid mineral deposits and the development and implementation of innovative technologies, and with the skills to use modern research methods and technologies:

- in the development and processing of mineral deposits;
- in mine and underground construction;
- in mining machinery and equipment, power supply and automation.

Learning Outcomes/Competences (General and Professional)

- Describes the essence of modern research methods, technologies based on the latest achievements in mining and extraction, the construction of solid mineral extraction enterprises, open-pit and underground (shaft) mining and the processes related to it, mineral processing, and the operation of deposits;
- By expanding and rethinking the knowledge acquired, explains the need to create new cost-effective and waste-free technologies, and the methods for calculating individual processes of underground and open-pit mining technology;
- Participates in the independent planning, implementation and supervision of innovative research related to the technologies of solid mineral extraction and processing;
- Evaluates new research and analytical methods and approaches that are oriented towards the creation of new knowledge and are reflected in international peer-reviewed publications;
- Formulates well-founded conclusions on the basis of a thorough and competent analysis of the information obtained as a result of research;
- Plans research with the aim of developing new special methods for the development of mineral deposits;
- Prepares proposals for solving problems arising in the underground or open-pit development of mineral deposits;
- Participates in the implementation of research projects based on the latest achievements in the field;
- Resolves technological issues in response to challenges arising in the field of mining and extraction;
- Shares the search for ways of establishing values and the development of innovative methods for establishing them, as well as the accepted norms of professional values, ethics and morality.

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 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 Mining	5
Teaching Methods	6
Mineral Processes	5
Special Methods for the Development of Mineral Deposits	5
Transient Modes of Pressure Hydrotransport 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 Beneficiation Processes	
Transient Processes in Mining Electromechanical Systems	
Total	**50**