Admission Prerequisites

The right to study in the doctoral educational programme is granted to a person who holds a Master's degree or an equivalent academic degree in one of the following detailed fields of the Classifier of Fields of Study: 0521 Environmental Sciences; 0532 Earth Sciences; 0712 Environmental Protection Technology; 0719 Engineering and Engineering Trades not Elsewhere Classified; 0732 Building and Civil Engineering.

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://www.gtu.edu.ge/migheba/programebi/migheba-saphekhurebis-mikhedvith/doqtorantura/doqtorantura-migheba/

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 educational programme is to prepare:

Goal 1. A specialist in the sustainability, rational use and management of water resources who, with knowledge based on the latest achievements in the field, will be able to introduce innovative environmental protection methods;

Goal 2. A specialist capable of carrying out innovative research in water resources engineering, with a vision oriented towards the continuous development of the field and with academic activity that integrates freely into the research community;

Goal 3. A specialist with the ability to analyse the global environmental challenges facing the field of environmental engineering and with academic and professional leadership skills.

Learning Outcomes/Competences (General and Professional)

1. With knowledge based on the latest achievements in the field of environmental engineering and a systematic/critical understanding of the field, determines the rational use and management of water resources by means of modern engineering computer technologies and innovative methods;
2. With an understanding of the principles of academic integrity, plans and carries out research activities through the full reconciliation of recognised approaches and original scientific ideas, using environmental protection and modern innovative tools;
3. Using new research or analytical approaches, develops/advances a strategy for the design, construction and maintenance of innovative water supply and sewerage systems;
4. In line with the requirements of the labour market and using innovative methodological tools, independently implements the latest (green) technologies of water resources management and water treatment;
5. For the purposes of policy and strategy research in the field of environmental engineering, on the basis of the critical analysis, synthesis and evaluation of new, complex and contradictory ideas and approaches, independently makes correct and effective decisions to solve existing complex problems, using the latest methods of BIM technologies;
6. By engaging in thematic debates held at international level for colleagues and the wider public, as well as in academic activities oriented towards the transfer of knowledge and in supervising students' scientific research work, and in compliance with the required standards for local and international peer-reviewed publications, clearly and comprehensibly presents scientific potential and the results/views of their own research;
7. Demonstrating innovation and independence and in compliance with the principles of academic integrity, leads modern research projects based on the latest engineering and technological achievements in the field of environmental engineering and carries out environmental impact assessment measures for water management facilities.

Student Knowledge Assessment System

In the teaching of the study courses defined by the programme, student performance is assessed in accordance with the assessment system approved by Order No. 3 of the Minister of Education and Science of Georgia of 5 January 2007 "On the Rules for Calculating Credits for Higher Education Programmes".

The mastery of the topics envisaged by the programmes (syllabi) of the study courses defined by the educational programme is assessed on a 100-point scale. A study course is considered passed by the doctoral student if, as a result of the midterm assessments and the final examination, they accumulate 51 or more points. A doctoral student who obtains at least 30 points in the midterm assessments is admitted to the final examination.

Assessment of the study component:

Positive grades are:

a) Excellent (summa cum laude) – an outstanding piece of work – 91–100 points;

b) Very good (magna cum laude) – a result that exceeds the set requirements in every respect – 81–90 points;

c) Good (cum laude) – a result that exceeds the set requirements – 71–80 points;

d) Average (bene) – a work of average level that meets the basic set requirements – 61–70 points;

e) Satisfactory (rite) – a result that, despite shortcomings, still meets the set requirements – 51–60 points of the maximum assessment.

Negative grades are:

a) Unsatisfactory (insufficient) – a work of unsatisfactory level that does not meet the set requirements – 41–50 points;

b) Completely unsatisfactory (sub omni canone) – a result that completely fails to meet the set requirements – 40 points or less.

Detailed information on the assessment of the study and research components of the doctoral educational programme is provided in the GTU document "The Study and Research Components of Doctoral Educational Programmes and the Rules for Their Assessment".

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

Subject	**Credits**
Scientific Communication Techniques	4
Research Methods and Their Application in Water Engineering	5
Teaching Methods	6
Modern Water Supply and Sewerage Systems	5
Environmental Impact Assessment of Water Management Facilities	5
Water Resources Management	5
Green Technologies in Water Engineering	5
BIM Technologies in Water Engineering	5
Professor's Assistantship	10
Study Courses with Content Relevant to the Main Field of Study (Elective)	**10**
Total	**60**
Study Courses with Content Relevant to the Main Field of Study (Elective)	
Environmentally Friendly Modern Construction	5
Environment and Sustainable Development	5
Climate and Water Resources	5
Water Sources and Quality	5
Environmental Pollution Prevention Technologies	5

Modelling of Water Resources Consumption Using Modern Computer Technologies	5
Artificial Intelligence in Water Engineering	5