Admission Prerequisite

Admission to an English-language Bachelor's degree educational programme is open only to holders of a state certificate confirming complete general education or an equivalent person who are admitted in accordance with the procedure established by the legislation of Georgia.

The applicant must pass national examinations in the following subjects: mathematics or physics, Georgian language and English language.

The minimum competence threshold for applicants seeking admission to the programme is 50% of the result obtained in English in the Unified National Examinations.

Admission to the programme is also possible through internal and external mobility in accordance with the regulations established by the Ministry of Education and Science of Georgia and Georgian Technical University.

Admission to the programme without passing the Unified National Examinations is possible in accordance with the procedure established by the Ministry of Education and Science of Georgia.

Programme Objective

The graduate of the Bachelor's educational programme 'Computer Science':

- Will effectively apply computational methods and algorithmic principles to solve real-world problems in various fields. Will be able to obtain, create and develop data-driven solutions for complex tasks in academia and industry.

- Will develop ethical and professional conduct, recognise the impact of computational solutions on society, and adhere to ethical principles in professional practice.

- Will develop lifelong learning skills and independently determine personal professional development or pursue the next level of university education. Will study new technologies to remain at the forefront of the latest advances in computer science.

Learning Outcomes/Competences (General and Professional)

1. On the basis of acquired knowledge, analyses a complex computing problem, taking into account the interests of users and clients, and applies the principles of computing and other related disciplines to identify solutions;

2. Participates in developing, implementing and evaluating computing-based solutions that meet computing requirements in the context of the programme's disciplines.

3. Communicates effectively in various professional contexts;

4. Makes reasoned decisions with professional responsibility on the basis of legal and ethical principles;

5. Functions as a team member or leader in activities appropriate to the programme's field or discipline;

Applies computer science theory and software fundamentals to produce computing-based solutions.

Student Knowledge Assessment System

Assessment is based on a 100-point scale.

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, meaning that the student needs more work to pass and is entitled to take one additional examination after independent study;

(F) - Fail - 40 points or less, meaning that the work completed by the student is insufficient and the student must retake the course.

If a student receives an FX grade, an additional examination is scheduled no earlier than 5 days after the results are announced. The grade obtained in the additional examination is not added to the score obtained in the final assessment.

A student who disagrees with the assessment of their learning outcomes may, within five working days of being informed of the assessment result, submit a reasoned complaint to the Dean and request a review of the results. Link: https://gtu.ge/pdf/forms-instructions/appeal-restore.pdf

Detailed information on the assessment system is available on the GTU website: Instruction on the Management of the Educational Process at Georgian Technical University. Link:

https://www.gtu.edu.ge/uploads/2026/03/educational-process2-1.pdf

Course	Credits
Engineering Mathematics 1.1	5
General Physics A2	4
Fundamentals of Computer Architecture and Organization	5
Fundamentals of Algorithmization and Programming Elements	6
Ethics and Social Responsibility in Technology	5
Foreign Language 1 (General Elective)	

Georgian language-1 (for non-Georgian speakers)	5
English Language B2-1	
Engineering Mathematics 2.1	5
General Physics B2	4
Operating Systems Fundamentals	5
Object-Oriented Programming -1 (based on C++ - C#)	5
Fundamentals of Database systems	6
Foreign Language 2 (General Elective)	
Georgian language-2 (for non-Georgian speakers)	5
English Language B2-2	
Engineering Mathematics 3.1	5
Object-Oriented Programming 2 (based on Java)	5
Database management system - Oracle	6
Fundamentals of Probability Theory	5
Optimization methods	5
Science (General Elective)	
General Physics C2	4
General Chemistry A	
Elements of Academic Writing	3
Introduction to Computer Networks	6
Programming in Python	5
Basics of Web Technologies	5
Discrete Mathematics	6
Statistical Models and Simulation by SPSS	5
Computer Architecture	4
Fundamentals of Information Security - this is in English	6

Human-Computer Interaction	4
Data structures and algorithms	4
Fundamentals of Artificial Intelligence	6
Professional Electives 1	6
Computer Network Organization	
Distributed Database Systems	
Business Intelligence for Decision Making	
Web Application Development Using ASP.NET MVC Framework	
Data Mining and Knowledge Discovery for Big Data	6
Big Data Fundamentals	6
Machine Learning	6
Professional Electives 2	
Fundamentals of Metadata Storage and Management	6
Computer Systems Modernization and Service	
Grid Computing	
Program Electives 3	
Geographic Information Systems (GIS) Fundamentals	6
Artificial Intelligence in Web sites	
Blockchain and Cryptocurrency	
Big Data Storage and Processing System Hadoop	6
Cybersecurity mechanisms and methods	4
Internship - (Computer Science)	6
Building Mobile apps	5
Computer graphics and interactive techniques	4

Professional Electives 4	
General Paradigms of Genetic Algorithms	5
Cognitive Computing and Big Data Analytics	
Cloud Computing	
Knowledge Representation and Reasoning	
Internet of Things	
Final Project	10
Free components	20
Total	[240]