Programme Objective

The Construction Engineering and Management programme aims to prepare highly qualified specialists who meet labour market requirements and, using the knowledge acquired through the programme, can respond to the latest challenges in the field within their competence.

Objective 1: On the basis of the fundamental issues of construction engineering and management, provide graduates with knowledge of the basic principles of managing construction businesses in a modern market economy, and engineering and management approaches to planning and implementing individual construction investment projects.

Objective 2: On the basis of broad knowledge of construction engineering and management, equip graduates with the ability to understand the construction business environment, carry out individual construction processes, effectively manage construction investment projects, and recognise ethical, social and legal issues facing the field.

Objective 3: Establish a solid foundation for graduates to continue their studies at the next level in construction engineering and management and pursue continuous professional development.

Learning Outcomes/Competences (General and Professional)

1 With knowledge of the fundamental propositions of mathematics and natural sciences and methods of solving problematic engineering issues in the field, analyses possible solutions using standard and certain advanced methods.

2 With knowledge of the principal aspects of conducting business and the socioeconomic and legal issues of construction, formulates the basic principles of entrepreneurship and selects methods of managing financial, material and human resources.

3 With knowledge of engineering and structural systems of buildings and structures, methods of implementing design and construction work and selecting construction resources, and modern approaches to construction process planning and management, manages processes on construction sites while considering occupational health and safety standards, and observes ecological safety regulations in professional practice.

4 With knowledge of methods for managing construction investment development projects and the functioning of the real estate market, and an understanding of construction engineering and management, manages construction projects from concept development through commissioning, observing legal and ethical standards.

5 Implements a research/practical project in construction engineering and management in accordance with predetermined instructions, using standard and certain advanced methods; interprets the analysis of the results and formulates appropriate conclusions;

6 Communicates clearly and effectively about ideas, existing problems and their solutions in construction engineering and management with both specialist and non-specialist audiences.

7 Participates in interdisciplinary teamwork, creating a collaborative environment with team members to accomplish assigned tasks;

8 Plans continuous professional development, identifies personal further learning needs and pursues them with a high degree of independence.

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 an FX grade is received in a component of the educational programme, GTU must schedule an additional examination no earlier than 5 days after the final examination results are announced. The grade obtained in the additional examination is not added to the score obtained in the final assessment. The additional examination grade constitutes the final assessment and is reflected in the final grade for the programme component. If the final grade for the educational component, taking the additional examination grade into account, is 0-50 points, or the student does not meet the minimum competence threshold in the final/additional examination, the student is assigned an F grade of 0 points.
The programme-based assessment of the level of achievement of student learning outcomes in each component comprises an interim assessment and a final examination. The interim assessment includes ongoing activities and a mid-semester examination. Each assessment form and component is assigned a share of the total score (100

points) in the final assessment. Specifically, the maximum interim assessment score is no more than 60, while the maximum final examination score is no less than 40. Each assessment form includes assessment component(s), which include assessment method(s), measured by assessment criteria. A student may take the final examination if they have obtained at least the minimum positive grade in the interim assessment component(s) in accordance with the course syllabus (at least 30 points in total), and have completed and submitted on time the minimum required assignments in documentary form. Detailed information is available at the following electronic address: 'Instruction on the Management of the Educational Process at Georgian Technical University'.

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

Course	Credits
[Engineering Mathematics 1]	[5]
[General Physics 1M]	[5]
[General Chemistry]	[5]
[Computer Graphics Programs]	[5]
[Special Course in the State Language]	[5]
[English Language 1]	[5]
[German Language 1]	[5]
[French Language 1]	[5]
[Russian Language 1]	[5]
Engineering Mathematics 2	[5]
[Applied Mechanics 1]	[5]
[Principles of Economics]	[3]
[Management]	[5]
[Building Materials]	[4]
[English Language 2]	[5]
[German Language 2]	[5]

[French Language 2]	[5]
[Russian Language 2]	[5]
[Introduction to Psychology]	[3]
[Introduction to Philosophy]	[3]
[Introduction to Sociology]	[3]
[Fundamentals of Politics]	[3]
[Georgian History and Culture]	[3]
[Engineering Statistics]	[5]
[Modern Engineering Measuring Instruments]	[5]
[Building Structures 1]	[5]
[Digital Technologies in Management]	[5]
[Applied Mechanics 2]	[5]
[Construction Economics]	[5]
[Construction Production Technology]	[5]
[Construction and Quality Control]	[4]
[Engineering Safety and Environmental Protection]	[4]
[Building Structures 2]	[3]
[Business Environment for Construction Activities]	[4]
[Marketing]	[5]
[Financial Accounting and Reporting]	[5]
[Construction Cost Estimation]	[5]
[Construction Project Management]	[5]
[Construction Organisation and Planning]	[5]
[Fundamentals of Construction Law]	[4]
[Construction Licensing and Tenders]	[5]
[Architecture of Buildings and Structures]	[3]

[Real Estate Valuation]	[3]
[Taxation]	[3]
[Business Ethics and Social Responsibility]	[3]
[Hydraulic Structures]	[3]
[Green Construction and Energy-Saving Technologies]	[5]
[Practice (Internship)]	[15]
[Bachelor's Project]	[10]
Total	[180]