Admission Prerequisite

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

Programme Objective

The programme aims to prepare specialists to manage the activities of industrial, service and design enterprises. This includes: participating in developing organisational policy for operations; systematising resources and planning, organising and controlling their rational use; motivating staff to achieve strategic organisational goals and ensuring coordinated cooperation; and actively participating in developing and implementing technological re-equipment projects and projects to introduce new products/services.

Learning Outcomes/Competences (General and Professional)

1. Explains modern management theories, approaches used to manage industrial operations, and factors affecting the organisational environment of enterprises;

2. Describes the business and economic environment, current events and processes, and interprets them in proposals to improve operations and project implementation, aiming to better meet customer expectations;

3. Finds and analyses data describing an organisation's internal operational potential, evaluates external entrepreneurial opportunities created by globalisation, and, on the basis of appropriate conclusions, plans and implements measures supporting organisational development;

4. To manage resource provision for an organisation's operations and project implementation, uses both general-purpose software (Microsoft Excel, Microsoft Project) and specialised information and communication technologies for production planning and management: Excel QM, POM QM for Windows, SPSS, NetEmul, Cisco Packet Tracer, Arena, ORIS Accounting, and MRP and ERP systems;

5. Communicates with relevant stakeholders: customers, employees of their organisation and other colleagues, in Georgian and a foreign language. Uses appropriate information technologies to present personal opinions, organisational performance results and decisions made in accordance with them;

6. Participates in developing projects, operations and strategies and

implementing them; organises operational alignment with corporate strategy; plans production activities, operations and processes and ensures their implementation with high efficiency and quality;

7. Within defined competences and observing ethical principles, performs the following managerial functions: planning - selects objectives of an organisation's operational system and mechanisms for achieving them; organising - directs subordinate staff, ensuring accurate and coordinated performance of operations specified by relevant decisions; motivation - selects staff to design operations, ensuring full suitability for the planned activities, identifies their expectations of the work and ensures these are met; control - takes corrective action to ensure full alignment of operational system performance with plans and normative indicators; organises the coordinated work of multifunctional teams;

8. Within personal competence, possesses engineering knowledge and skills: has a general understanding of principal production and technological equipment, systems and processes; knows the functions engineers perform in planning, producing and operating technical facilities; organises engineers' work to solve technical problems.

9. Objectively evaluates and identifies personal professional development needs; plans and independently acquires new elements of the necessary knowledge.

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, 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. 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. Assessment of student learning outcomes in each programme component includes interim and final assessment. 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. The maximum interim assessment score is 60, and the maximum final examination score is 40. A minimum competence threshold is defined for each assessment form and reflected in each course syllabus. 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 and have completed and submitted on time the minimum required assignments in documentary form. Detailed information on organising the educational process and assessing student achievements 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.pdf

Course	Credits
Compulsory Courses with Content Corresponding to the Main Field of Study	
Physics	4
Applied Informatics	4
Microeconomics	4
Introduction to the Specialisation	4
Management Fundamentals	4
Elective Courses	
Precalculus	4
General Chemistry A	
Elective Foreign Language 1 (Choose a Language)	
English Language 1	5

German Language 1	
French Language 1	
Russian Language 1	
Compulsory Courses with Content Corresponding to the Main Field of Study	
Calculus 1	5
Elements of Academic Writing	3
Macroeconomics	5
Special Course in the State Language	5
Elective Humanities Subjects (Free Programme Component)	
Fundamentals of Philosophy	3
Introduction to Psychology	
Introduction to Sociology	
History of Georgia	
Elective Foreign Language 2 (Choose a Language)	
English Language 2	5
German Language 2	
French Language 2	
Russian Language 2	
Compulsory Courses with Content Corresponding to the Main Field of Study	
General Electrical Engineering	5
Calculus 2	5
Fundamentals of Entrepreneurship	4
Environmental Protection and Ecology (Free Programme Component)	3
Engineering Management	3

Marketing Basics	5
Safety in Production Systems	4
Elective Foreign Language 3 (Choose a Language)	
English Language 3	5
German Language 3	
French Language 3	
Russian Language 3	
Compulsory Courses with Content Corresponding to the Main Field of Study	
Financial accounting	5
Fundamentals of Organisational Behaviour	4
EU Entrepreneurship Policy and Georgia	3
Business and Society (Free Programme Component)	5
Operation of Production and Warehouse Equipment	4
Elective Foreign Language 4 (Choose a Language)	
English Language 4	5
German Language 4	
French Language 4	
Russian Language 4	
Elective Courses	
Technology of Electrical and Electronic Production	5
General Electricity Supply	
Production Systems and Processes	
Compulsory Courses with Content Corresponding to the Main Field of Study	
Electrical Measurements	3
Project Management	5

Elements of Applied Statistics	3
Managerial Reporting	5
Fundamentals of Human Resources Management	5
Fundamentals of Systems Engineering	5
Elective Courses	
Alternative Energy Sources and Energy Conservation	4
Introduction to Electrical and Electronic Engineering	
Compulsory Courses with Content Corresponding to the Main Field of Study	
Service Organisation and Management	5
Production and Operations Management	5
Quantitative Methods of Decision-Making	5
Fundamentals of Network Modelling of Production Systems	5
Fundamentals of Quality Management	5
Elective Courses	
Staff Coaching	5
Organisation and Management of Teamwork	
Compulsory Courses with Content Corresponding to the Main Field of Study	
Information Technologies in Operations Management	5
Business Planning	5
Fundamentals of Business Law	5
Product Management	5
Strategic Management	5
Entrepreneurial Risk Management	5
MRP Systems for Production Resource Planning	5
Systems for Modelling Engineering Management Processes	5

Inventory and Supply Chain Management	5
Elective Courses	
Financial Analysis of Innovative Activities	5
Project Budgeting and Controlling	
Bachelor's thesis	10
Total	240