Quality Manual

LEPL Georgian Technical University

(translated from Georgian)

1 Scope

1.1 General Provisions

This document is the main guidance document of the quality system of the LEPL Georgian Technical University. It was created in accordance with the requirements of the international quality management system standard ISO 9001-2015.

The numbering and headings of the items in the manual coincide with the 2015 edition of the above-mentioned standard, while its content and philosophy are based entirely on the principles of the standard.

The quality management methodology "Plan-Do-Check-Act" is taken as the basis of the philosophy.

The purpose of this manual is:

- to define and describe the processes of the university's quality management system (QMS) and the interrelations between them, in order to ensure a high and stable quality of the services provided;
- to demonstrate the ability to provide services of stable quality in accordance with the requirements of customers and regulatory documentation.

This manual is a first-level document of the quality management system and one of the main foundations for the development of all other QMS documents. (See Annex 1)

1.2 Application

This document gives a general description of quality management in accordance with the requirements of the international standard ISO 9001-2015. The requirements and provisions of the manual are mandatory in the process of developing, implementing, adjusting, stably operating and continually improving the QMS.

The developed quality manual is approved by the Rector and enters into force on the basis of the relevant order. Registration of the manual and the introduction of amendments to it are carried out in accordance with the procedure "Document Control". The requirements of this manual are mandatory and apply to all processes of the university that are included in the quality management system.

2 LEPL Georgian Technical University - Presentation of the Organization

2.1 Presentation of the Organization

The legal entity of public law - the Georgian Technical University (hereinafter "the University") - is an autonomous institution whose main purpose is to conduct higher educational activities and scientific research. It implements educational programs of all three levels of academic higher education, vocational educational programs, a Georgian language preparation educational program, continuing education and other educational programs.

2.2 Location

The legal address of the LEPL Georgian Technical University is: 0171, Georgia, Tbilisi, 77 Kostava Street.

3 Documents Used

The following documents were used in compiling this manual:

- ISO 9001-2015 Management System international standard;
- ISO 9000-2015 Management System international standard, Terms and definitions.

Where a document mentioned in the text is referenced without a date, the latest edition of the referenced document applies.

4 Terms and Definitions

Definitions of terms related to the quality system are given in accordance with the international standard ISO 9000-2015:

Term	Definition
Audit	A systematic, independent and documented process of verification for the objective assessment of the fulfillment of audit criteria and their quality.
Audit criteria	A set of policies, requirements, methods, rules and other elements used as a reference standard for comparison.
Record	A document that reflects results achieved or actions performed.
Document	A carrier of information.
Infrastructure	A set of buildings and structures, equipment and installations, communications and the relevant services.
Competence	A person's proven ability to apply knowledge and skills.
Corrective action	An action to eliminate the cause of a nonconformity.
Supplier	A person (legal or natural) who supplies products and/or a product.
Customer	A person (legal or natural) who receives products and/or a product.
Customer satisfaction	The customer's perception that their requirements regarding the quality of the service have been met.
Requirement	A stated necessity that is mandatory.
Preventive action	Advance actions to avoid an undesirable event (nonconformity).
Process	A set of interrelated activities that transforms "inputs" into "outputs".
Product	The result of a process.
Nonconformity	Failure to fulfill a requirement.
System	A set of interrelated elements.
Validation	Confirmation, through objective evidence, that the requirements for a specific intended use or application have been fulfilled.
Defect	A gross, irreparable nonconformity.
Quality	A set of characteristics of a service, determined by their ability to satisfy the diverse needs of people. Quality is determined by the extent to which the product conforms to standards, contracts, and customers' needs and conditions.
Quality management system	A management system designed to ensure the quality of processes and of the organization.
QMS	Quality management system.
QM	Quality manual.

5 Quality Management System

5.1 Basic Requirements

The University plans, implements, documents and maintains in working condition a quality management system. At the same time, it continually improves its results in accordance with the requirements of the ISO 9001-2015 quality management system standard.

The University undertakes to:

- define and implement the processes necessary for the management system;
- define the sequence and interrelation of the QMS processes in order to ensure the stable quality of the services provided;
- define the criteria and methods for these processes in order to ensure their implementation and control;
- ensure the timely availability of resources and information for the implementation and monitoring of these processes;
- take the necessary measures to achieve the planned results and to continually improve them.

The QMS processes and their sequence are given in the relevant document.

On the basis of an analysis of information flows (customer requirements, complaints, etc.), the University's top management has formulated a policy and objectives and carries out planning in the field of quality.

In order to strictly enforce the documented procedures of the QMS and the management of processes, personal responsibility has been distributed. Periodic audits and analyses of the conformity of processes to documented requirements are planned.

The development, implementation and functioning of the QMS are controlled by the Rector, and, within their competence, the process is also led by:

- the appointed authorized person (QMS leader / management representative).

5.2 Documentation Requirements

5.2.1 General Provisions

QMS documentation includes:

- the documented policy and objectives in the field of quality;
- the quality manual (this document);
- documented procedures and records in accordance with the QMS standard;
- necessary documents (legal, regulatory, technological, etc.) for the effective planning, operation and control of the organization's activities and processes.

The general structure of the documentation and the rules for its preparation and control are given in the procedure "Preparation and Control of Documents".

5.2.2 Quality Manual

The organization has developed, approved and maintains in working condition the quality system, which includes:

- the scope;
- the general principles of operation of internal standards and procedures;
- a description of the interrelations between the QMS processes.

5.2.3 Control of Documents

QMS documents are easily manageable. Documents are drawn up as records in accordance with the requirements of the procedure "Control of Records".

Document control is a process that provides for:

- development of regulatory documents;
- coordination (agreement) of regulatory documents;
- ensuring the identification of changes;
- distribution;
- ensuring the storage of documents;
- review;
- withdrawal.

5.2.4 Control of Records

Records are controlled in accordance with the requirements of the procedure. Records are protected:

- by defining authority and by the signature of the relevant person on each record, against unauthorized access and amendment;
- by approval of a standard form;
- by the responsibility of the head of the structural unit to whose field the relevant records belong for their timely completion, protection and control.

6 Management Responsibility

6.1 Commitments

Aware of its leading role in the successful functioning of the QMS and of its responsibility to the customer, the University's management has set a quality policy, which it ensures through the following means:

- communicating to personnel the importance of meeting customer requirements as well as established and legislative requirements;
- providing adequate resources (human and material);
- systematic analysis of the QMS and ensuring conformity with ISO 9001.

6.2 Customer Focus

The management of the organization creates conditions for the quality of the service, taking into account the effective use of all resources, for which it systematically analyzes the existing and prospective requirements of customers.

6.3 Quality Policy

The draft quality policy was developed by a representative of the organization's top management. The draft requires constant monitoring of its relevance and its conformity to the requirements of society, the market, customers and the organization.

Top management ensures that the QMS policy:

- is consistent with the organization's objectives;

- contains commitments to comply with the requirements of the ISO 9001 international standard and to continually improve the effectiveness of the organization's QMS in accordance with the requirements of this QM;
- is clear and understandable to personnel.

6.4 Planning

6.4.1 Quality Objectives

To implement the policy, the organization's top management, together with the heads of structural units, defines the objectives in the field of quality. The objectives correspond to:

- the quality policy;
- the assessment of the quality objectives set during the past period;
- data on the assessment of the effectiveness of the QMS's functioning.

The set objectives, the progress of their fulfillment and ways of resolving issues are discussed at meetings. Heads of units submit their proposals for inclusion in the draft quality objectives to the quality manager. The final version is prepared at the year's concluding general meeting. The agreed document is finally approved by the Rector.

6.4.2 Planning and Improvement

To achieve the objectives set in the field of quality, the University develops work plans for the normal functioning of the quality system and for improving its support, which are approved by the Rector.

Ongoing control of the implementation of the plans is carried out by the management representative. The University's top management analyzes the progress of the implementation of the plans at least once a year.

6.5 Responsibility, Authority and Communication

6.5.1 Responsibility and Authority

The general management of the University is carried out by the Rector / Chancellor and, in his or her absence, by a person appointed by the relevant order. The Rector / Chancellor or his or her substitute is responsible for monitoring and constantly controlling the processes of development, implementation, functioning and continual improvement of the QMS.

Responsibilities of management and personnel:

The tasks, responsibilities, authorities and interaction of University personnel in the field of quality are defined by:

- the regulations of structural units;
- job (work) instructions;
- internal standards;
- this manual.

The general rules for developing job instructions are described in the procedure "Document Control".

Job instructions and the regulations of services are communicated to personnel by the heads of the relevant units.

Responsibilities and rights/duties in specific positions are defined by the job instruction and the regulations of the service.

6.5.2 Management Representative, Quality Management Leader

The management representative is appointed by decision of the Rector / Chancellor and reports directly to the Rector / Chancellor. The management representative is responsible for:

- coordinating the work of developing, implementing and improving the University's QMS;
- developing, implementing and controlling QMS documentation;
- developing, distributing and constantly updating the quality manual;
- coordinating internal and external audits of the QMS;
- relations with external parties on QMS matters.

To perform the above functions, the management representative is authorized to:

- develop, implement, control and withdraw QMS documentation in accordance with the procedure "Document Control";
- report in a timely manner to the University's top management on the functioning and improvement of the QMS;
- conduct audits and other measures aimed at ensuring the process of continual improvement of the QMS.

6.5.3 Internal Communication

Within the University, information on requirements, tasks and achievements in the field of quality is disseminated:

- in the form of electronic or printed documentation.

Information is transmitted in printed and electronic form in accordance with the University's requirements. Oral transmission of information is carried out when assigning tasks, when introducing the policy and objectives, and when presenting interim achievements.

6.6 Management Review

6.6.1 General Provisions

The University's management analyzes planned and completed work at least once a year. The analysis is carried out on the basis of internal and external audits, received complaints, suggestions and other input data. The prepared materials are submitted to the Rector / Chancellor and the heads of the relevant structural units.

6.6.2 Input Data for the Review

- analysis of internal and external audits;
- assessment of nonconformities and their causes; analysis of the effectiveness of corrective and preventive measures;
- fulfillment of obligations by suppliers;
- information on the functioning and improvement of QMS processes.

6.6.3 Output Data of the Review

- management decisions on improving the QMS;
- provision of the necessary resources;
- measures taken to improve the work environment, qualifications and motivation;
- information on improving the service in accordance with customer requirements;
- development and implementation of preventive and corrective measures;

- confirmation and review of the QMS policy.

7 Resource Management

7.1 Provision of Resources

In accordance with the commitments made and the plans of the University, management plans and ensures the formation of resources for the fulfillment of the quality policy and objectives, which includes:

- staffing;
- infrastructure development;
- information support;
- creating, maintaining and improving working conditions.

7.2 Human Resources

7.2.1 General Requirements

Personnel are the most important link of the QMS. The role of the personnel involved in the QMS is great in ensuring that services conform to requirements. Therefore, personnel selection must be carried out with regard to qualifications, competence, knowledge and experience, as reflected in the specific job instruction.

The coordination of the University's staffing process is carried out by the Personnel Department, which, in agreement with the Rector / Chancellor, on the basis of vacancies and the staffing schedule or at the request of department heads, manages the process of personnel selection and the upgrading of the qualifications of the existing staff.

The Personnel Department is responsible for the training of personnel and, in order to fulfil these commitments, is in contact with all structural units of the organization.

7.2.2 Competence, Training and Awareness of Personnel

The University is obliged to:

- correctly determine the conformity of personnel competence with the requirements;
- as necessary, ensure the training of personnel to achieve the competence required in relation to the QMS;
- ensure that personnel are aware of their active involvement in the functioning of the QMS;
- periodically take care of the training of personnel in occupational safety requirements;
- maintain in working condition the relevant records, in compliance with the requirements, for the purpose of improving personnel qualifications and knowledge.

7.3 Infrastructure

To achieve the objectives in the field of quality, the University provides a sufficient quantity of the means necessary for operation and creates, develops and maintains in working condition the infrastructure, which includes:

- the territory and the utilities running through it;
- buildings and structures;
- other communications, including communication links;
- computer equipment;

- regulatory and technical documentation.

The University's infrastructure is formed in line with the development of the organization, and the criteria for its assessment are:

- the purposefulness of the use of operational means;
- effectiveness and prospects;
- occupational safety and environmental protection issues.

Decisions on the development of infrastructure are made in agreement with the relevant structural units.

The Infrastructure Management Department is responsible for the timely planning, implementation and control of repair and preventive work, and the Information Technology Department is responsible for computer equipment.

7.4 Work Environment

To ensure the requirements of the quality policy, the University's management provides an appropriate work environment that has a positive effect on increasing personnel's work indicators and satisfaction. The organization creates appropriate conditions for combining and mobilizing human and material resources and characteristics, for ensuring the health and safety of personnel, and for protecting the environment.

The organization ensures:

- appropriate equipment according to the requirements of workplaces;
- safe and harmless working conditions;
- occupational safety;
- periodic analysis of personnel's requirements and level of satisfaction.

8 Processes

8.1 Procurement

8.1.1 Procurement Process

In accordance with the procurement management procedure, the relevant units of the University, within their competence, carry out:

- determination of requirements (specifications) for main and auxiliary materials;
- determination of requirements for various kinds of services.

In particular:

- determining the need for all types of materials and services during the calendar year on the basis of various orders received from departments;
- determining technical requirements for auxiliary and complementary materials and services, fully describing the ordered/to-be-ordered products (specifications, drawings, storage periods and conditions, quantity, etc.);
- selection and evaluation of suppliers, as well as selection of potential and reserve suppliers;
- planning the work and supply of the procurement unit;
- concluding contracts with a clear indication of the technical specification and other quality characteristics of the materials and services to be supplied;
- carrying out control of all types of materials in accordance with supply schedules;

- control of the correct storage and rational use of received materials.

The supplier selection process and the selection criteria are described in the procurement procedure.

8.1.2 Procurement Information (Materials or Services)

Procurement information describes the product to be purchased and takes into account:

- the processes and equipment necessary for operation;
- personnel qualifications;
- the quality management system.

The organization must ensure timely informing of the supplier of the requirements established for procurement.

8.1.3 Verification of Purchased Materials

The organization controls the conformity of purchased materials to the requirements established for them. For this purpose, the person/service responsible for procurement carries out verification of the supplier using predefined methods and on the basis of information about the purchased materials.

8.2 Management of Core Processes

8.2.1 Control of Process Management

Process management is carried out in accordance with approved regulatory documentation:

- by strict compliance with the requirements of regulatory documentation (regulatory acts, standards, regulations, work rules, manuals, etc.);
- with appropriate resources, including trained qualified personnel;
- by distributing responsibilities among qualified personnel participating in the processes;
- by communicating the requirements of the quality policy and objectives to personnel;
- by building personnel motivation;
- through coordinated interaction of units at all levels;
- through objective assessment of the results obtained and, where necessary, carrying out corrective and preventive measures.

The main principles of process management are:

- management of the constituent elements of a core or supporting process (documentation, technological equipment, infrastructure, personnel, etc.);
- control of technological and documentary discipline;
- ensuring the stability of the technological process;
- appropriate maintenance and servicing of infrastructure and equipment.

The core process uses documentation that defines the established methodology:

- technical conditions and methodological instructions;
- legislative acts;
- resolutions;
- record-keeping (office work) rules.

Responsibility for compliance with the prescribed regulations rests with the heads of the University's units, and control is exercised by the person/service responsible for quality control. Responsibility for providing the necessary resources rests with management in accordance with the requirements of this manual.

8.2.2 Identification and Traceability

Identification and traceability are ensured at all stages of the process: at all stages of the core process, including the educational process, record-keeping rules, personnel management, and all main administrative links.

In the QM, identification and traceability make it possible to:

- determine the place and time of the occurrence of a nonconformity;
- exclude the influence (inclusion) of a detected nonconformity on the final result (influence on administrative or educational processes).

8.3 Control of Monitoring and Measuring Equipment of Technical Equipment and Infrastructure

The use of uncertified measuring instruments to measure parameters that are critical from the standpoint of safety and quality is prohibited at the University.

Metrological services are performed by a contractor, within its competence, or by in-house technical personnel.

9 Analysis and Improvement

9.1 General Requirements

The continual improvement process is a set of interrelated sub-processes, which includes:

- collection, recording and systematization of information;
- analysis of information, identification of problems and raising of issues;
- development and implementation of measures to solve problems;
- measurement and analysis of the effectiveness of the measures implemented.

Units collect and submit to the quality management manager information on identified nonconformities in quality processes, measures carried out, and the functioning of the organization's QMS.

All actions carried out in the direction of improvement are subject to periodic analysis to determine their effectiveness.

9.2 Monitoring and Measurements

9.2.1 Internal Audit

One of the main instruments for the continual improvement of the QMS is its internal audit, which is carried out by a group of auditors under the leadership of a lead auditor in accordance with an annual plan, approved at the beginning of the year.

Auditors must know:

- the requirements of ISO 9001 and of the QMS documentation;
- the specifics of the work of the structural unit being audited.

The audit is carried out in accordance with a preliminary plan, on the basis of notifications sent in advance. The results of the audit are documented as records.

9.2.2 Monitoring and Measurement of Processes

The table below lists the main QMS processes and the frequency of their monitoring and measurement:

Criterion	Monitoring form	Frequency
QMS analysis and evaluation; timeliness and relevance of amendments	Analysis	At least once a year
QMS audit		According to the audit plan
Registration of incoming/outgoing documents		Immediately upon receipt/dispatch
Registration of orders and directives		As needed
Number of nonconformities and remarks resulting from audits; accuracy of documenting audit results	Internal audit plan	Annually
	Audit results	According to the approved plan
Timely elimination of nonconformities	Nonconformity form	According to the fact
Providing the University with qualified personnel	Personnel training	Annually
	Personnel certification	As needed
Personnel's knowledge of job instructions; absence of accidents when personnel perform their duties	Development of job instructions	As needed
Fulfillment of the terms established by contract		
Monitoring and control of storage conditions in the warehouse		Daily

Note: the table layout in the source document was partly garbled in the text; the mapping of rows to columns above is a best reading of it.

9.3 Control of Nonconformity

Nonconformities are managed in accordance with the procedure.

Any service personnel member is obliged to report a detected nonconformity to the quality management manager, after which a unified nonconformity form is completed, containing all necessary information on the nonconformity, its prevention and corrective actions.

Depending on the nature of the nonconformity, the University's management decides on the corrective measure for the nonconforming process.

9.4 Data Analysis

All information received is subject to analysis. The analysis is carried out at the following levels:

- in the relevant structural unit;
- in the Quality Department together with the leader of the quality management system.

9.5 Improvement

9.5.1 Continual Improvement

The result of the analysis is management decisions concerning the improvement of processes and of the QMS.

Improvement must be documented; the implementation of the decisions made is subject to control and monitoring in terms of effectiveness and conformity.

The continual improvement of the organization's QMS is carried out by implementing the corrective and preventive measures defined as a result of analyzing the information received.

9.5.2 Corrective Actions

Corrective actions are carried out in response to an identified nonconformity and include the process of determining causes.

The general practice for implementing corrective actions is:

- determining the cause of the nonconformity;
- analysis of the cause that gave rise to the nonconformity;
- development of corrective actions;
- implementation of corrective actions;
- control and monitoring of the actions carried out.

9.5.3 Preventive Actions

Preventive actions are carried out to eliminate causes that can lead to a nonconformity.

The general practice for implementing preventive actions includes:

- identification of potential nonconformities and their causes;
- development of a program of preventive actions;
- implementation of preventive actions; and
- evaluation of the results of their monitoring.

The description of the procedure for carrying out corrective and preventive actions and the monitoring results are kept in the Quality Department.

Annex 1

Continual Improvement of the Quality Management System

The source document contains a process diagram here. Its labels are reproduced below.

CUSTOMER Requirements	**Continual improvement of the QMS**	**CUSTOMER Satisfaction**
	Management responsibility Resource management	
Input	Operational part (realization process)	Output (final process / product)
	Measurement, analysis, improvement	

Agreement Sheet

Agreed:	**Date**	**Signature**
Rector / Chancellor		