



Ministry of Education and Science of Ukraine

Lviv Polytechnic National University

Quality Management System

Regulations

APPROVED

Rector of

Lviv Polytechnic National University

_____ Yurii Bobalo

Order № _____

“ _____ ” _____ 20__

Regulations on the Quality Management System of Lviv Polytechnic National University

(QMS 2018)

Approved
by the Academic Board of
Lviv Polytechnic National University
Minute №43 dated 24.04.2018

Lviv

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INTRODUCTION

The University was founded on March 7, 1816 as the Imperial-Royal Real School in Lviv on the basis of the Royal Decree № 78 of the Austrian Emperor Franz I. In the process of further reorganization on the basis of the Imperial-Royal Real School in Lviv there were established the Imperial- Royal School of Technical Sciences and Trade in Lviv (1825-1835), Imperial-Royal Real-Trade Academy in Lviv (1835-1844), Imperial-Royal Technical Academy in Lviv (1844-1877), Imperial-Royal Higher Polytechnic School (1877 -1894), Imperial-Royal Polytechnic School in Lviv (1894-1921), Lviv Polytechnic (1921-1939), Lviv Polytechnic Institute (1939-1942), Technical professional courses in Lviv (1942-1944).

On the basis of the order of the Union Committee on Higher Education of the USSR of September 2, 1944 № 417 and the order of the Council of People's Commissars of the USSR of August 29, 1944 № 17580 Lviv Polytechnic Institute resumed its activity.

According to the Resolution of the Cabinet of Ministers of Ukraine of August 13, 1993 № 646 "On Improving the Network of Higher Education Institutions" Lviv Polytechnic State University was established.

According to the Decree of the President of Ukraine of September 11, 2000 № 1059/2000 "On granting national status to some higher education institutions" the University was granted the status of "national".

The University is a state-owned higher education institution and is managed by the Ministry of Education and Science of Ukraine.

1. Full official name of the University in Ukrainian: Національний університет «Львівська політехніка».

Abbreviated name of the University in Ukrainian: Львівська політехніка

Full official name of the University in foreign languages:

in English - Lviv Polytechnic National University;

in German - Nationaluniversitat "Lvivska Polytechnika";

in French - University Nationale "Polytechnique de Lviv";

in Polish - Uniwersytet Narodowy "Politechnika Lwowska";

in Russian - Национальный университет «Львовская политехника».

2. The main task of the University is to conduct high-level educational activities, to carry out research, to ensure an organic combination in the educational process of educational, scientific and innovative activities, preservation and enhancement of moral, cultural, scientific values and achievements of society.

3. The main activities of the University:

1) training, retraining and advanced training of specialists with higher education according to the relevant educational-professional, educational-scientific and scientific programmes at all levels of higher education in accordance with state orders and contractual obligations;

2) training and certification of scientific and academic staffs of high qualification;

3) scientific research and related work of the innovation cycle "Science - production", the introduction of modern market mechanisms of the innovative activity in the field of high technology on the basis of the interaction of education and science;



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4) taking measures to further higher education reform in accordance with modern achievements in science and technology and economic requirements, taking into account the achievements of the world's top universities.

4. The main tasks of the University are:

1) ensuring a high scientific-theoretical and methodological level of training, retraining and advanced training of specialists, development and implementation of the latest technologies and teaching aids, including IT, in order to train specialists in high-tech development;

2) implementation of innovative training programmes for scientific and academic staff for universities, research institutions, high-tech industries;

3) postgraduate education, advanced training and internships of scientific and academic staff;

4) study of labour market demand for specialists in relevant specialities;

5) professional development of employees of enterprises, institutions and organizations that implement the results of applied research of the University;

6) production and implementation of experimental samples of new equipment, technologies and small-scale high-tech products;

7) creation of conditions for the exchange of students, postgraduates, doctoral students, scientific and academic staff between higher educational institutions of Ukraine and abroad;

8) integration of education and science with production through the creation of educational-scientific-industrial associations, basic departments, laboratories together with the institutes of the National and Branch Academies of Sciences and enterprises, institutions and organizations;

9) ensuring the participation of students in the scientific research and in the implementation of research results as a necessary component of the educational process;

10) conducting basic and applied research in priority research areas of scientific, technical and innovative activities, in particular, together with the National and Branch Academies of Sciences;

11) implementation of innovative projects for the development, implementation and production of new high-tech products;

12) ensuring the protection of intellectual property rights, in particular innovative developments of the University;

13) participation in the implementation of international projects and programmes, scientific conferences, seminars, exhibitions, etc.;

14) creation of joint research centres, institutes and other associations with foreign partners for the implementation of educational and research programmes issuing the relevant documents on education to students, postgraduate students and doctoral students;

15) educational outreach and cultural activities.

The main purpose of the University's educational activities is to train highly qualified and competitive in the national and international labour markets professionals for enterprises of all forms of ownership, research and educational institutions, government and administration, at all levels of higher education on the basis of national and universal values.



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1. Purpose and application scope of the Regulations

1.1 Regulations on the quality management system of Lviv Polytechnic National University (hereinafter - the Regulations) is the main regulatory document, which describes the quality management system of the University (hereinafter - QMS). The Regulations are developed in accordance with the requirements and in compliance with the numbering of the ISO 9001 standard and DSTU ISO 9001.

1.2 The Regulations are intended for general use in order to:

inform employees, consumers of services and all stakeholders about the policy and activities of the University on quality;

guide the implementation, functioning and improvement of QMS;

improve and regulate the University activity;

ensure the stable functioning of the QMS.

1.3 Requirements of The Regulations apply to the educational and scientific activities of the University and are mandatory for review and implementation by all employees of the University within the QMS.

1.4 Potential and actual customers of educational and scientific services can get acquainted with the Regulations to confirm the ability of the University to meet their requirements, ensure stable quality of services and be convinced that they are dealing with a reliable partner.

1.5 The UQR is responsible for implementation and updating of the Regulations.

2. Regulatory references

2.1. The Regulations refer to the following standard and legislative documentation:

DSTU ISO 9000: 2015 Quality management systems. Basic regulations and glossary of terms

DSTU ISO 9001: 2015 Quality management systems. Requirements

Standards and Recommendations for Quality Assurance in the European Higher Education Area (ESG), 2015

Law of Ukraine "On Higher Education" of 01.07.2014 № 1556-VII (as amended)

Law of Ukraine "On Access to Public Information" of 13.01.2011 № 2939-VI (as amended)

Law of Ukraine "On Public Procurement" of 25.12.2015 № 922-VIII

Strategy for reforming higher education in Ukraine until 2020 (draft)

Resolution of the Cabinet of Ministers of Ukraine "On approval of licensing conditions for educational activities of educational institutions" of 30.12.2015 № 1187



3. Terms, definitions and abbreviations

3.1. Terms and definitions used in the Regulations correspond to DSTU ISO 9000 and the Law of Ukraine "On Higher Education", in particular:

educational organization - an organization that provides educational services;

education provider - a person who provides education to students;

educational process - an intellectual, creative activity in the field of higher education and science, conducted at the University through a system of scientific and methodological and pedagogical activities and aimed at transferring, gaining, increasing and using knowledge, skills and other competencies of students. As well as at the formation of a harmoniously developed personality;

educational activity - an activity carried out in order to ensure the acquisition of higher, postgraduate education and to meet other educational needs of higher education learners and other persons;

top management - a person or group of persons who directs and controls the activities of the University at the highest level. Top management has the right to empower and provide resources within the University.

stakeholder - a person or organization that can influence a decision or activity, is influenced, or perceives itself as being influenced by decisions or activities.

customer - a person or organization that can receive or receives products or services intended for this person or organization, or needed by this person or organization.

quality management - quality management. Quality management may include quality policy formation and setting of quality objectives, as well as processes to achieve these quality objectives through quality planning, quality assurance, quality control and quality improvement

quality assurance - an integral part of quality management, focused on creating confidence that quality requirements will be met

quality control - an integral part of quality management, focused on compliance with quality requirements

quality improvement - an integral part of quality management focused on increasing the ability to meet quality requirements. Quality requirements can relate to any of the aspects such as effectiveness, efficiency or traceability.



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process - a set of interconnected or interactive works that use inputs to create a planned result.

management system - a set of interconnected or interacting elements of the organization to formulate policies, set goals and processes to achieve these goals.

quality management system - part of the quality management system

quality - the degree to which the set of its own characteristics of the object meets the requirements. The term "quality" can be used with adjectives such as low, good or high. "Own", as opposed to "provided", means available in the object

quality manual - a specification of the University's quality management system.

documented information - information that the organization must control and maintain in the current state, and the media on which it is placed.

NOTE 1 Documented information may be provided in any format and on any medium and may come from any source.

Note 2. Documented information may relate to:

management systems, in particular related processes;

information designed to make the organization work (documentation);

proof of results achievements (protocols).

protocol; record - a document in which the obtained results or evidence of the performed work is given. Protocols can be used, for example, to document traceability and provide evidence of verification, precautionary and corrective action.

feedback (customer satisfaction) - opinions, comments and expressions of interest in the product, service or complaint process

customer satisfaction - the customer's perception of the degree of fulfillment of his expectations.

Note 1. The customer's expectations may be unknown to the organization or even to the customer himself until the products are delivered or the service is provided. In order to achieve a high level of customer satisfaction, it is necessary to meet customer expectations, even if they are not formulated, generally understood or mandatory.

Note 2. Complaints are a common indicator of low customer satisfaction, but their absence does not necessarily mean a high level of customer satisfaction.

Note 3. Even if the customer's requirements are agreed and met, this does not necessarily guarantee a high level of customer satisfaction.

monitoring - determination the status of the system, process, products, services or work.

NOTE 1 To determine status, it may be necessary to verify, monitor or critically observe.



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Note 2. Monitoring - the determination of the status of an object at different stages or at different times.

preventive action - an action taken to eliminate the cause of a potential discrepancy or other potentially undesirable situation.

Note 1. There may be several reasons for a potential discrepancy.

Note 2. A precautionary action is taken to prevent an event, while a corrective action is taken to prevent a recurrence of the event.

corrective action - an action taken to eliminate the cause of the discrepancy and prevent its recurrence.

Note 1. There may be several reasons for the discrepancy.

Note 2. A corrective action is taken to prevent a recurrence of an event, while a precautionary action is taken to prevent an event from occurring.

correction - an action performed to eliminate the identified discrepancy.

Note. Correction can be made before, with or after a corrective action. Correction may be, for example, changing or degradation of quality level

efficiency - the ratio between the achieved result and the resources used

effectiveness - the degree of implementation of planned works and achievement of planned results

risk - the impact of uncertainty on the result (uncertainty about goals achieving).

3.2. Following abbreviations are used in the Regulations:

HEO – higher education organization;

MSEU – Ministry of Science and Education of Ukraine;

AI –academic institute;

AS– academic staff;

SPW– scientific and pedagogical work;

UQR– University quality representative;

QMS – quality management system



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4 Organization environment

4.1 Understanding the organization and its environment

Lviv Polytechnic National University is an organization of higher education of the IV level of accreditation, which provides educational services and innovative research in accordance with modern economic needs and stakeholders' requirements, dissemination of scientific knowledge, cultural and educational activities, preservation and enhancement of best traditions of university education.

The activity of the University is carried out within the current national and international legislative and regulatory framework, internal constituent and regulatory documentation. The University constantly monitors changes in the documents related to its field of activity, and in accordance with these changes, internal documents are corrected in proper time in accordance with the Regulations "Management of Documented Information".

Analyzing the activity of QMS, the University administration annually determines the external and internal factors related to its activity and strategic development and influences the achievement of the planned results of QMS, opportunities and threats. The results of the analysis are registered in the form of "SWOT-analysis" of the relevant record.

External factors

According to the tasks set, the activities of the University are directly influenced by: the Cabinet of Ministers of Ukraine, the Verkhovna Rada of Ukraine, the Ministry of Education and Science of Ukraine (MES), the National Agency for Quality Assurance, applicants, employers, national, foreign and international institutions and organizations that finance educational and research projects (programmes).

The greatest impact on the educational and scientific activities of the University have:

the Ministry of Education and Science, which develops strategies and programmes for the development of higher education, determines the conditions of admission to higher education institutions, ensures the functioning of the Unified State Electronic Database on Education, forms a list of fields of knowledge and a list of specialities for higher education, develops standards of higher education for each speciality, approves forms of documents on higher education (scientific degrees) of the state standard, issues licenses for educational activities on the basis of positive expert opinion of the National Agency for Quality Assurance in Higher Education, reissues and cancels them, formulates proposals and places state orders for higher education training in the manner prescribed by law, forms an attestation board, which approves the decisions of the academic boards of higher education organizations (scientific institutions) on the awarding scientific and scientific-pedagogical workers scientific degrees;

The National Agency for Quality Assurance in Higher Education, which formulates requirements for the quality assurance system of higher education, develops regulations on accreditation of educational programmes, conducts licensing examinations, prepares expert opinions on the possibility of issuing licenses for educational activities, accredits educational programmes for higher education learners, forms criteria for assessing the quality of educational activities, including scientific achievements of higher education institutions of Ukraine, which can determine the ratings of higher education institutions of Ukraine, develops requirements for scientific qualifications of



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candidates for scientific degrees, develops the procedure for their awarding by specialized scientific councils of higher educational institutions (scientific institutions), develops regulations on accreditation of specialized scientific councils, accredits independent institutions that evaluate and assure quality of higher education;

international institutions and organizations implementing projects and programmes of educational integration and research;

applicants which determine the formation of the university student body;

applicants for higher education who are interested in receiving excellent education and developing competencies that ensure successful employment in national and international labour markets;

other higher education institutions, the activity of which is compared with the University by national and international rankings of higher education institutions.

Internal factors that have the greatest impact on educational and scientific activities:

goals and objectives set by the University administration;

structure of the University;

resources (employees, material and technical base, information base, financial resources, knowledge);

corporate culture.

These factors are constantly monitored and analyzed by the University administration for further planning of the University activities.

4.2 Understanding the needs and expectations of stakeholders

As the University ability to provide quality educational services that meet customer requirements and legislative, regulatory and regulatory documents are influenced or may be influenced by stakeholders, the University management annually in December, while planning next year's activities, identifies the following:

a) stakeholders relevant to the QMS;

b) requirements of the stakeholders relevant to the QMS.

Based on the results of the identification of stakeholders and their requirements, the first vice-rector forms the Register of Stakeholders.

The University management is responsible for continuous monitoring and analysis of information about stakeholders and their requirements.

The results of monitoring and analysis of information about stakeholders, their requirements and expectations are evaluated by the University management during the QMS analysis and are recorded in the protocol of this analysis.

4.3 Defining the scope of the quality management system application

The University management has established that the limit and applicability of QMS involve the University educational activities in the provision of services in the field of higher education (code 85.42 according to the SCP) and services for research and experimental development (code 72.19 according to the SCP).



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The QMS is applied to all structural units of the University in accordance with the organizational structure.

Determining the scope of QMS (Annex 1), the University management took into account:

- a) external and internal factors (point 4.1);
- b) requirements of relevant stakeholders (point 4.2);
- c) services provided by the University.

The QMS of the University takes into account all the requirements of ISO 9001 and DSTU ISO 9001.

The UQR is responsible for ensuring the availability of information on the scope of QMS application and its maintenance in good condition in the form of documented information.

4.4 Quality management system and its processes

4.4.1 The University has developed and implemented QMS, which covers the necessary processes for its operation and their interaction, in accordance with the requirements of ISO 9001 and DSTU ISO 9001 (Annex 2 and 3). The QMS is kept up to date and is constantly improving.

The University management has identified the processes required for the effective functioning of QMS, and their application within the University, as well as:

- 1) identified the necessary inputs of these processes and the expected outputs m (specified in the relevant internal regulations);
- 2) determined the sequence and interaction of these processes;
- 3) identified the criteria and methods (including monitoring, measurement and relevant performance indicators) required to ensure the effectiveness of the functioning and control of these processes (specified in the relevant internal regulations);
- 4) identified the resources needed for these processes and ensured their availability;
- 5) appointed persons authorized and responsible for these processes (Annex 3);
- 6) considered risks and opportunities (in accordance with paragraph 6.1);
- 7) ensured the evaluation of these processes during internal audits and the analysis of QMS by management and the implementation of any changes necessary to ensure that these processes achieve desired results;
- 8) provided improvement of processes and QMS in general.

4.4.2 The University provides for effective process management:

a) the relevance of the documented information required for the operation of the processes in accordance with the Regulation on the Management of Documented Information. The list of the University QMS documents, the processes described in them, and the relevant items of ISO 9001 and DSTU ISO 9001 are given in Annex 2;

b) storage of documented information to ensure that the processes are carried out as planned in accordance with the provisions of "Management of documented information".

The University management is responsible for the implementation, operation and continuous improvement of QMS and effective management of its processes.



5 Leadership

5.1 Leadership and commitment

5.1.1 General provisions

The Rector of the University constantly demonstrates his leadership and commitment to the QMS:

a) taking responsibility for the effectiveness of the QMS;
b) ensuring the development and informing the University staff of policies and objectives in the field of quality, their consistency with the strategic directions and environment of the University;
c) ensuring the integration of QMS requirements into the processes of the University;
d) promoting the use of process approach and risk-oriented thinking;
e) ensuring the availability of resources necessary to meet the commitments established in accordance with the policies and objectives of the University.

f) informing the University staff about the importance of meeting the requirements of customers (stakeholders), as well as legislative, regulatory requirements for the provision of educational services, as well as the importance of effective quality management and compliance with QMS requirements;

g) ensuring the achievement of QMS planned results;

i) engaging, guiding and encouraging University staff to contribute to the effectiveness of QMS;

j) contributing to improvement;

k) supporting other relevant leaders to demonstrate their leadership in their areas of responsibility.

5.1.2 Customer focus

The Rector constantly demonstrates his leadership and customer-oriented commitment, ensuring that:

a) the requirements of the customer, as well as legal and regulatory requirements, have been defined in contracts and agreements, staff has been informed and these requirements have been fulfilled in the provision of educational and research services;

b) risks and opportunities that may affect the correspondence of products and services, as well as the ability to increase customer satisfaction, have been identified and taken into account by heads of processes and departments and brought to the attention of all process participants and employees;

c) the focus has always been on improving customer and stakeholder satisfaction.

This commitment of the top management legally represented by the Rector is aimed at combining quality management and general management of the University.

5.2 Quality policy

5.2.1 Formulation of quality policy

The Rector of the University formulates a quality policy that:

a) corresponds to the purpose and environment of the University and supports its strategic direction;

b) is the basis for setting quality objectives;

c) contains an obligation to meet applicable requirements;



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d) contains a commitment to continuous improvement of QMS.

The quality policy is approved by the Academic Council of the University and put into effect by order of the Rector of the University.

Every year, as part of the QMS analysis, the management evaluates the relevance of the quality policy and its compliance with the University's strategy. The evaluation results are recorded in the protocol of this analysis. This takes into account the wishes, comments and suggestions expressed by stakeholders and information on positive experiences and best practices of the Free Economic Zone.

As a result of such a revision, changes and additions may be made to the quality policy. Relevant changes to the quality policy are made by the Rector, approved by the Academic Council of the University and implemented by order of the Rector of the University.

5.2.2 Informing about quality policy

A scanned copy of the approved quality policy is posted on the official website of the University to ensure accessibility for all stakeholders.

The Rector is responsible for the formation, implementation and updating of quality policy.

The heads of the departments are responsible for acquainting subordinate staff with the quality policy (and changes to it), awareness and compliance of all defined provisions.

5.3 Functions, responsibilities and powers within the organization

The University management ensures informing of the University staff and their understanding of specified responsibilities and authority.

Specified responsibilities and authority are regulated by the Statute of the University, service instructions, regulations on structural units and other organizational and managerial documentation.

The Rector of the University determines the distribution of responsibilities and powers for the QMS processes of the University (Annex 3).

The Rector of the University by order appoints the UQR and the QMS authorized persons in the units (quality-authorized representatives) with the appropriate powers necessary for them to perform the following functions:

a) ensuring compliance of the QMS with the requirements of regulatory documents (ISO 9001 and DSTU ISO 9001);

b) reporting to on the effectiveness of QMS and opportunities for improvement;

c) ensuring the promotion of customer-oriented commitment at all levels at the University;

d) ensuring the integrity of the QMS in the case of its planning or changing.

The UQR is responsible for performing the following functions:

- ensuring the establishment, implementation and maintenance of processes required for the quality management system in accordance with the requirements of DSTU ISO 9001: 2015 (ISO 9001: 2015);

- analysing the functioning of the quality management system and reporting to the University management on the results of the QMS for its further analysis and improvement;

- analyzing quality policy and, if necessary, preparing proposals for its revision;

- organization of setting goals in the field of quality and analyzing their achievement;

- informing the University management about the effectiveness of the quality management system and the need for its improvement;



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- ensuring awareness of the University staff with the requirements of applicants;
- organization and coordination of measures to improve the QMS of the University;
- organization of internal information at the University regarding the policy, goals, requirements in the field of quality, as well as the effectiveness of the QMS and the activities of the University in general.

The UQR has the following powers in the field of quality management:

- to demand from the officials of the University compliance with the requirements of the QMS;
- to represent the University in relations with external organizations;
- to approve internal documents regulating the QMS of the University;
- to sign, if necessary, QMS protocols.

UQR is responsible for:

- maintaining the functioning of the implemented QMS at the University;
- supervision over the implementation of the University policy and timeliness of its revision, as well as approval of goals in the field of quality;
- monitoring the implementation of planned activities to achieve the planned goals and improve the functioning of the University as a whole;
- to provide the University management with complete information on the functioning of the QMS, as well as the need of its improvement in proper time;
- ensuring familiarization of the University staff with the requirements of the applicants;
- ensuring familiarization of the University staff with the requirements of the QMS documentation.

Heads of structural units are responsible for the quality of work of employees of their units, endorsing documents on employment, work plans and reports on their implementation, thus confirming that the qualifications and experience of their subordinates allows performing work at a high level, according to established rules and regulations of at the university.

Heads of structural units are responsible for timely familiarization of employees with changes in requirements, rules and normative documentation on performance of works.

The Rector is responsible for the distribution and control of the performance of functions, duties and powers within the University and the heads of departments are responsible for the same within the subordinate structural units.

6 Planning

6.1 Actions on risks and opportunities

6.1.1 While planning the University management considers the factors of the University environment (item 4.1) and the needs and expectations of stakeholders (item 4.2), as well as an established list of typical risks and opportunities that are taken into account for:

- a) ensuring that the QMS can achieve the intended result (s);
- b) increase the number of desired effects;
- c) prevention of side effects or reduction of their number;
- d) achieving improvement.



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The list of typical risks and opportunities is established by the management, considered at the Rector's Office and approved by the Rector.

Measures taken to realize the desired opportunities, to prevent undesirable effects are memorized in the quality objectives for the current academic year and in the University's development strategies and are implemented by structural units in accordance with the areas of their activity. The evaluation of the effectiveness of the implemented actions takes place during the internal audit of the structural units responsible for their implementation.

6.1.2 SWOT analysis is used at the University when planning actions on risks and opportunities, to ensure their proportionality to the potential impact of risks and opportunities in the accordance with services.

Risk response includes avoiding risk, taking risk to seize the opportunity, eliminating the source of risk, changing the probability of occurrence or consequences, sharing or maintaining risk based on informed decision of the parties in accordance with the Regulation "Risk and Opportunity Management".

Opportunities include adopting new practices, introducing new educational programs or services, entering new markets, gaining new customers, building partnerships, using new educational technology and other desirable and effective ways to respond to the needs of the University or customers / stakeholders in accordance with the Regulation "Risk and Opportunity Management".

The First Vice-Rector is responsible for identifying and implementing actions on risks and opportunities within the University, and the heads of departments are responsible for the same within the subordinate structural units.

6.2 Quality objectives and action planning for their achieving

6.2.1 Based on the quality policy, the University management annually ensures the defining of quality objectives for both the QMS in general and the main QMS processes. Goals in the field of quality are set by the Rector's Office of the University, documented in accordance with clause 6.2.2, approved by the Rector and brought to the notion of responsible persons.

The University management ensures that the goals in the field of quality:

- a) have been consistent with quality policy;
- b) were measurable;
- c) took into account the requirements;
- d) were relevant in terms of service compliance and customer satisfaction;
- e) were constantly monitored;
- f) have been brought to the attention of the staff;
- g) were up- to date

Quality objectives are set for a certain period (mostly one year), after which the Rector's Office conducts a critical analysis of their achievement and effectiveness. The evaluation results are recorded in the QMS analysis protocol by the authorities.

Based on the goals in the field of quality of the University, the heads of departments determine the goals in the field of quality for subordinate departments, approve them and inform employees at meetings, meetings of departments, scientific councils of the Institute.



6.2.2 When planning the achievement of goals in the field of quality, the University management determines:

- a) what needs have to be done;
- b) what resources will be needed;
- c) who will be responsible;
- d) when it will be completed;
- e) how the results will be evaluated.

When developing goals in the field of quality the following is taken into account:

- conclusions of the authorities made after QMS analysis;
- changes in the requirements of employers and other stakeholders;
- indicators of processes effectiveness;
- the degree of satisfaction of employers, students, graduates, customers of research;
- available resources for improvement, etc.

The Rector is responsible for defining, planning and monitoring the achievement of quality objectives within the University, and the heads of departments are responsible for the same within the subordinate structural units.

6.3 Planning for change

If the University management determines the need for changes in the QMS, it is discussed at the Rector's Office and provides:

- development of plans, implementation and development of QMS;
- updating the QMS documentation to keep it in working order;
- planning and development of goals in the field of quality;
- the possibility of division or redistribution of responsibilities and powers;
- continuous improvement of QMS effectiveness on the basis of systematic inspection of the quality of educational services and production of scientific products, periodic analysis of QMS performance and feedback from stakeholders;
- ensuring the integrity and coherence of all QMS components while changing.

Changes and an action plan are approved and implemented by order of the Rector. The Rector is responsible for planning and implementing changes within the University, and the heads of departments / processes are responsible for the same within the subordinate structural units / processes.

7 Management system support

7.1 Resources

7.1.1 General provisions

The University Administration identifies the resources needed to develop, implement, maintain and continuously improve the QMS, and ensures their timely availability.

Annually, in December, while planning the University activity for the next year the University Administration considers and evaluates:

- a) capacity and constraints on available internal resources;
- b) what is needed to get from external suppliers.



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7.1.2 Human resources

The Rector ensures the identification and availability of human resources necessary for the effective implementation of the QMS, as well as for the functioning and control of processes. The staff of the University is formed accordingly.

Labour relations at the University are formed on the basis of state and contractual regulation and are described in the Collective Agreement.

Information about education, qualifications, experience, position and changes for each employee is in their personal files, which are stored in the Human Resources Department.

The process of organizing and ensuring human resource management is described in the Regulation "On the Human Resources Department", «.

The Rector is responsible for the formation of staff within the University, and the heads of departments are responsible for the same within the subordinate structural units.

The Head of the Human Resources Department is responsible for organizing and ensuring human resource management.

7.1.3 Infrastructure

The University has identified, provided and maintained the infrastructure necessary for the functioning of processes and achieving compliance of educational services with licensing and accreditation requirements for training and research.

The University's infrastructure includes academic buildings, dormitories, training and research laboratories, publishing house, administrative and amenity buildings, structures and premises, sports facilities, catering services, equipment, hardware and software, transport, communication and information systems.

The list of state property assigned to the University is determined by the order of the Ministry of Education and Science of 25.11.2016 № 1429

Compliance of material and technical support of the educational process with the established requirements is confirmed by valid licenses for educational activities.

Responsibility for the infrastructure management is defined in Annex 3, job descriptions and other internal documentation of the University.

7.1.4 Environment for the functioning of processes

The University has defined and provided in accordance with the licensing and accreditation requirements for the training of specialists the environment necessary for the functioning of the University processes, achieving compliance of educational and research services with the appropriate requirements. The process environment includes the following factors, which are supported by the relevant departments and responsible persons:

- physical (temperature, heat, humidity, light, air circulation, hygiene, noise) - Administrative Economic Department in accordance with the sanitary and technical certificate of working conditions at the University. Responsible - Vice-Rector for Training and Production;

- social (non-discrimination, moderation, non-conflict) - the University Administration and heads of departments in accordance with the Collective Agreement;

- psychological (reduction of stress, prevention of emotional exhaustion, emotional comfort) - the University Administration and heads of departments in accordance with the Collective Agreement;



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- conditions for physical health of the staff are provided by sports and health institutions of the university, responsible - Vice-Rector for Training and Production;

- safe working conditions (protection, electrical and fire safety, prevention of injuries at work) - in accordance with the Collective Agreement and the provisions "On the Department of Fire Safety", "On the Department of Labor Protection" are provided by responsible persons in units who according to the rules and instructions on labor and fire safety, conduct seminars and briefings with academic staff and personal.

The Vice-Rector for Training and Production is responsible for providing and maintaining an appropriate environment for the functioning of the University's processes.

The environment for the functioning of processes is periodically analyzed and evaluated by the University Administration. If it is necessary to improve the environment and if material opportunities are available, the administration makes appropriate decisions on this issue.

7.1.5 Resources for monitoring and measurement

7.1.5.1 General provisions

7.1.5.1.1 Resources for monitoring and measuring the results of educational services

A rating system for assessing student achievement, confirmatory tests and other tools for assessing learning results, intermediate assessment, which includes current and final knowledge control were implemented in order to improve the quality of education and motivate students to study at the University. Requirements for monitoring and measuring the progress of the students are described in the provisions: "On the organization of the educational process,", "Regulations on rating assessment of student achievement", "On assessing the residual knowledge of students of qualification level Specialist and Master", "On the state certification of the students and the work of the examination boards of Lviv Polytechnic National University".

Relevant documented information, which testifies that the resources for monitoring and measuring students' achievements correspond to their purpose, is stored in accordance with the Instruction on record keeping.

Vice-rectors for Education are responsible for managing the provision of the necessary resources to monitor and measure the results of educational services.

7.1.5.1.2 Resources for monitoring and measuring the results of research services provision.

The University has identified the resources needed to ensure credible and reliable results of research work, and ensured their availability in educational and research laboratories.

Heads of training and research laboratories ensure that the resources provided:

a) were suitable for the specific type of work carried out to monitor and measure the results of research work;

b) have been in good condition to guarantee their continued fitness for use.

Heads of educational and research laboratories ensure the preservation of relevant documented information, which testifies that the resources for monitoring and measuring the results of research work correspond to their purpose.

The Vice-Rector for Research is responsible for managing the provision of the necessary resources to monitor and measure the results of research services.

7.1.5.2 Traceability of measurement



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Traceability of measuring research results is a requirement of contracts and agreements. The management of scientific schools, projects and topics is considered an essential element to ensure confidence in the credibility of measurement results. To ensure the traceability of measurements, the heads of research laboratories shall ensure the implementation of the following actions in relation to measuring equipment:

a) calibration or verification at regular intervals or before use in accordance with d to international or national standards; if these standards are not available, the required information about the database used for calibration or verification is stored as documented information in accordance with the Regulation "Management of documented information";

b) identification in order to determine its calibration status;

c) protection against unauthorized adjustments, damage or deterioration, which may reduce the reliability of the calibration status and previously obtained measurement results.

If unauthorized adjustment, damage or deterioration of the measuring equipment has been detected, the supervisors of research projects or topics shall determine whether this has affected the reliability of the previously obtained measurement results and, if necessary, take appropriate actions:

1) cancel the results of previous measurements and organize new ones;

2) assign additional measurements;

3) determine the results of previous measurements as appropriate.

Heads of training and research laboratories are responsible for maintaining the measuring equipment in proper working order, preventing unauthorized adjustment and use and organize timely calibration and / or verification.

To control the resources of monitoring and measurement the Department of Metrology has been established at the University. It ensures the compliance of the University activity with state standards in accordance with the Law of Ukraine 'On Metrology and Metrological Activity' and controls and assesses measuring instruments and test equipment for research and educational process.

The Department of Metrology prepares and approves lists of tests of measuring instruments (FTA), which are subjected to mandatory verification or calibration.

7.1.6 Knowledge of the organization

In accordance with the standards of higher education and educational programs, the University has determined the list of knowledge necessary for the functioning of processes and achieving compliance of educational services with the requirements to them, which are given in the programs of academic disciplines.

To ensure the exchange of knowledge between the participants of the educational process and their actualization, the University has organized the publishing of scientific and educational literature and its distribution through the scientific and technical library, as well as conferences, thematic seminars, open lectures, meetings with representatives of enterprises, etc.

The University has introduced a system of mentoring, mutual attendance of classes, scientific and methodological seminars, trainings and round tables with representatives of enterprises, scientific communities and other freelancers to ensure the exchange of knowledge between employees and their actualization.

Sources of knowledge at the University are divided into internal and external.



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External sources of knowledge include information the University receives from customers, competitors, consultants, government and industry agencies, as well as partner organizations.

Internal sources of knowledge include: staff with their knowledge, experience and skills; information infrastructure, which includes databases, online media, library, reporting, etc.; history and organizational culture, etc.

Heads of departments are responsible for identifying, providing and maintaining the necessary knowledge.

7.2 Competence

The competencies of the person (s), requirements for education, professional training or experience required to perform the job duties are specified in the job instructions.

The University has introduced systems for assessing the competence of employees, which are described in the provisions: "Regulations on evaluating the work of SPP and determining their ratings", "On competitive selection of candidates for vacant positions of research and teaching staff at Lviv Polytechnic National University", "On certification researchers who hold the positions of heads of scientific departments, professionals, specialists and workers of the research departments of Lviv Polytechnic National University", "On training and certification of scientific and scientific-pedagogical staff at the University."

The University has implemented and supported the process of professional development, which is described in the regulations "On the organization of the educational process at Lviv Polytechnic National University ", "On professional development and internships of research and teaching staff of Lviv Polytechnic National University ".

The University has a system of incentive and motivation of employees, which is described in the Collective Agreement, provisions: "On material incentives for scientific, pedagogical, engineering and technical staff and doctoral students of Lviv Polytechnic National University", "On the procedure for conferment of scientific and pedagogical employees for the academic degrees of professor and associate professor at Lviv Polytechnic National University".

Appropriate documented information as proof of employee competence is recorded in personal files and stored in the personnel department.

The first vice-rector is responsible for organizing and ensuring the process of professional development and internships of the University.

7.3 Awareness

The Rector at the meeting of the Academic Board of the University and the heads of departments at meetings, conferences, academic councils of the Institutes inform the staff of the following:

- a) quality policy;
- b) relevant quality objectives;
- c) the importance of personal contribution to the effectiveness of the quality management system, in particular the benefits of improving performance;
- d) consequences of non-compliance with QMS requirements.

QMS issues are considered at the meetings of the Rector's Office at least once a year.



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University staff is informed about quality policy, strategic goals in the field of quality, as well as goals for the current academic year in the field of quality, determining the contribution of separate departments (employees) in their implementation, the consequences of non-compliance with QMS by individual documents posted at University website, it is discussed at meetings and meetings of structural units with the subsequent introduction of tasks for the implementation of certain goals and policies in the work plans of structural units (employees).

7.4 Information

External information at the University is carried out in accordance with the requirements of the Law of Ukraine "On Access to Public Information".

The Rector's Office ensures the availability of requirements established by the legislature, industry organizations and customers for the staff of the University.

Informing external customers about the QMS Policy and the functioning of QMS is carried out through the University website. Responsible - Vice-Rector for Education (responsible for organizing the educational process).

Internal informing of employees about changes in the goals, requirements, procedures that affect the effectiveness of QMS is carried out in accordance with the Regulation "Management of documented information".

The information received by the heads of structural units at the meetings of the Academic Council of the University, the Rector's Office, is brought to the attention of the staffs, organizational and administrative documents and additional information are personally given to the executors or sent by e-mail.

7.5 Documented information

The documented information of the QMS of the University is given in Annex 2 and it covers:

- a) documented information in accordance with ISO 9001 and DSTU ISO 9001;
- b) documented information that the University determines as necessary for the effectiveness of QMS.

The University has developed, implemented and maintained a process of document management, which includes the creation, updating and control of documented information. The process is described in the Regulations "Management of documented information".

The order of document circulation at the University is described in the Instructions on the University document management.

The UQR is responsible for organizing and ensuring the process of managing the documented information of the University QMS.

8 Provision of educational and research services

8.1 Operative planning and control

The University plans, implements and monitors the processes necessary to meet the requirements for educational and research services (Annex 2), as well as for performing the actions defined in section 6:



- a) determination of requirements for educational services and research activities;
- b) establishing criteria for the results of processes and services;
- c) identification of resources required to meet service requirements;
- d) introduction of process control in accordance with the criteria;
- e) identification, maintenance and storage of documented information in necessary amount:
 - 1) to ensure that the processes are carried out as planned;
 - 2) to demonstrate the compliance of services with the requirements for them.

Planning of educational services and production of scientific products is documented in the form of:

- work plans of the Academic Board, Scientific and Methodological, Scientific and Technical Councils of the University;
- University development programmes and work plans of separate structural units;
- thematic plans of scientific research;
- plans to publish scientific and educational literature, update the material and technical base, improve infrastructure, etc.

The planning takes into account the policy and goals in the field of quality, the results of the University admission process of previous years, the need to open new specialities, the available level of resources and other parameters.

Control over the implementation of plans is carried out in the form of reports and speeches of responsible persons at the conference of the staff, meetings of the Academic Board, Scientific and Methodological Council, Scientific and Technical Council, rector's meetings, which are recorded in accordance with the QMS requirements.

The University monitors planned changes and analyzes the consequences of unforeseen changes in accordance with the Regulations "Risk and Opportunity Management" and, if necessary, takes appropriate actions to mitigate any negative effects.

The University controls the processes transferred to third parties in accordance with paragraph 8.4 of this provision.

The Rector is responsible for the planning, implementation and control of processes within the University, and the heads of processes / departments are responsible for the same within the subordinate processes / departments.

8.2 Requirements for services

8.2.1 Information communication with customers

The University has implemented, provided and maintained information communication with customers, which includes:

- a) providing information on services by posting terms and conditions of admissions process, describing educational programs and research activities on the official website of the University, conducting career guidance activities for applicants, "Open Days" and other promotional activities, as well as meetings with employers in accordance with the provisions "On ensuring access to public information at Lviv Polytechnic National University", "On the organization of the educational process", "On the system of internal quality assurance of higher education";



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b) processing of applications, requests, contracts or orders for additional educational services and research works (projects), and changes in them in accordance with the Terms and Conditions of Admission to the University, Statute and Regulations "On the organization of scientific, scientific and technical activities "and" On the organization of the educational process... ";

c) receiving feedback information from applicants, participants in the educational process, employers and customers of research (projects) on services, including complaints through surveys, questionnaires and correspondence in accordance with the Statute and Regulations "On the Appeals Commission";

d) treatment of documents provided by participants in the educational process, their personal data in accordance with the Law of Ukraine "On Personal Data Protection" and the property of customers of research works (projects) or their control in accordance with the terms of contracts and agreements;

e) establishment of specific requirements in contracts and agreements for actions in unforeseen situations (force majeure situations).

Responsibility for organizing and ensuring the process of informing customers is defined in the relevant internal documents of the University.

8.2.2 Defining service requirements

At the University, service requirements are determined based on the requirements of higher education standards, normative and regulatory documents of the Ministry of Education of Ukraine on higher education, research and development activities, labour market analysis results, assessment of student satisfaction with educational services, requirements of customers of research works.

Thus, it is guaranteed that:

- requirements for the provision of educational services and production of scientific products are defined;

- new requirements, which differ from the previous ones, are agreed and approved.

The Vice-Rectors for Education and Research are responsible for organizing and ensuring the process of determining the requirements for educational and research services, respectively.

8.2.3 Analysis of service requirements

Every year, before the new academic year or while organizing a new educational programme, scientific and methodological commissions in the fields of knowledge analyze the requirements of educational programmes and evaluate their educational and methodological and logistical support to ensure the ability to provide educational services that meet certain requirements. The results of analysis and evaluation are recorded in the reports of meetings of scientific and methodological commissions in the fields of knowledge.

Direct analysis of requirements for services arises at the stage of concluding contracts for the provision of educational services and the production of scientific products.

Additional requirements that arise during the conclusion of contracts are implemented by making attachments (changes) to the contracts.

The University has established a procedure for resolving the problem of discrepancies between the requirements of the contract or order and previously defined requirements in accordance with current legislation of Ukraine.



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The UQR and the Vice-Rector for Research are responsible for organizing and ensuring the process of analyzing the requirements for educational services and research, respectively.

8.2.4 Changing service requirements

If the requirements for the organization and provision of the educational process or educational programmes are changed, the heads of relevant processes / departments, directors of academic institutes and heads of departments ensure changes to the relevant documents and bring the changed requirements to the attention of staff.

The UQR and the Vice-Rector for Research are responsible for organizing and ensuring the process of timely changes to the requirements for educational services and research activities, respectively.

8.3 Planing and development of educational and research services

The University may develop and implement new types of services within the current legislation or assign new functions to it in coordination with the Ministry of Education and Science in the following areas:

- training of bachelors, specialists and masters in accordance with the license of the Ministry of Education and Science;
- advanced training of managers and employees of enterprises, institutions and organizations according to the license of the Ministry of Education and Science;
- training of scientific and scientific-pedagogical staff of the highest qualification;
- conducting basic and applied research;
- educational activities, etc.

From the moment of making a decision on the introduction of a new service to the moment of its implementation, a work schedule is drawn up, which includes establishing the necessary stages and necessary measures, including project analysis, verification and approval.

During the planning, the responsibilities are shared among the performers and the following steps are envisaged:

- taking measures to study the expectations of customers regarding the quality of services to be provided by the University;
- consultations with customers on the introduction of a new service (if necessary);
- definition of requirements for service quality, their approval, approval and approval;
- development of the service provision process, its approval, approval and approval;
- development of documented information on the provision of services and its approval;
- making changes to job descriptions, regulations on structural units of the University, other QMS documents;
- staff training, if necessary for the qualitative provision of new services;
- taking measures to inform customers about the new service and the possibility of obtaining it;
- pilot implementation of a new service and analysis of its results.

Each event is specified with the deadlines recorded in the work schedule.

During the development and implementation of the new service, the process is regularly analyzed by the University administration and reviewed if necessary.



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The process of designing and developing educational programmes at the University is implemented in accordance with the Law of Ukraine "On Higher Education", Licensing conditions for educational activities of educational institutions and "Guidelines on the educational programme in the context of new standards of higher education."

The processes of design and development of research works (projects) are implemented in accordance with the requirements of grant programmes, contracts and agreements.

The structural units of the university are responsible for the implementation of processes.

The Vice-Rector for Education is responsible for organizing and ensuring the process of designing and developing educational programs.

The Vice-Rector for Research is responsible for organizing and ensuring the process of designing and developing research papers (projects).

8.4 Control of externally provided processes, products and services

The University considers the following external processes:

- purchase of goods, resources to ensure educational and scientific processes;
- carrying out industrial, educational practice and work placement.

The University is a recipient of budget funds, so the process of procurement and control of external processes, products and services is implemented in accordance with the Law of Ukraine "On Public Procurement" through the electronic procurement system ProZorro and in accordance with the "Pre-threshold procurement procedure".

Evaluation and selection of suppliers is based on their ability to supply funds and other resources according to certain criteria. The main criteria are:

- availability of a license for a certain type of activity;
- duration of work with suppliers, their reliability;
- quality and price of supplied products.

The procurement process is ancillary and is performed by the supply department.

Purchased means and equipment to be used in QMS processes are subject to inspection at the University. The control is carried out in order to assess the compliance of purchased products with the requirements of the contract (agreement). Inspection and control are performed by structural units of the University.

Vice-Rector for Economic Affairs - Chief Accountant is the chairman of the tender committee and is responsible for organizing and ensuring the procurement and control of external processes, products and services.

Industrial, educational practice and work placement.

Practical training of students is carried out at enterprises and organizations in various fields of economy, science, education, health, culture, trade and public administration (including abroad), as well as in research institutes and leading research laboratories, centers (including abroad).

An agreement is concluded with the institutions where the participants of the educational process undergo practice / work placement with a description of the requirements and obligations of the parties. The type of practice and terms of its completion are defined in the curricula for each specialty. Requirements for the content of the practice, the design of reporting documentation are described in the program of practice, which is developed and maintained by graduate departments.



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Heads of practice, students who pass the practice, places and dates are specified in the relevant order of the Rector. Orders and contracts are kept in the Employment and Production Relations Department. The procedure for carrying out the work is determined by the Regulations on the organization of work placement for students of the Lviv Polytechnic National University. The person in charge is the head of the Employment and Production Relations Department.

8.5 Provision of educational and research services

8.5.1 Control over the provision of educational and research services

Educational and research services at the University are provided in accordance with the laws of Ukraine "On Higher Education" and "On Scientific and Research Activities" under controlled conditions, which include:

a) the availability of documented information that identifies:

1) characteristics of services specified in higher education standards, educational programmes, curricula, programmes of academic courses, work programmes of academic courses, plans and programmes of research works (projects);

2) the results to be obtained are indicated in the standards of higher education, educational programmes, curricula, programmes of academic courses, work programmes of academic courses, plans and programmes of research works (projects);

b) availability and use of appropriate resources for monitoring and measurement, which are specified in higher education standards, educational programs, work programmes of academic courses, contracts and agreements for research work (projects);

c) implementation of monitoring and measurement work at the appropriate stages to verify that the criteria for controlling processes or outputs, as well as the criteria for evaluating the results of service provision are met;

d) use of suitable infrastructure and environment for the functioning of processes;

e) the appointment of competent personnel, covering any necessary qualifications;

f) approval and periodic re-approval of the ability to achieve the intended results of service delivery processes in cases where the final outcome cannot be verified by further monitoring or measurement;

g) implementation of actions to prevent errors caused by human factors.

The process of controlling the provision of educational services is described in the provisions: "On the organization of the educational process" and "On the organization of the control of training quality."

The Rector is responsible for organizing and control of the provision of educational and research services. Other responsibilities for QMS processes within the functional responsibilities are defined in Annex 3 and in the internal documents of the University.

8.5.2 Identification and traceability

At the University, identification and traceability in the educational process is carried out in accordance with the provisions of "On the organization of the educational process", "On rating of student achievement", and in research - in accordance with contracts and agreements.

The following information is subjected to identification and traceability:

a) data on educational programs, training courses and groups (their codes);



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- b) data on students;
- c) schedules of classes and exams;
- d) test and examination transcripts;
- e) training contracts;
- f) laboratory equipment;
- g) contracts and agreements for research work (projects).

The process of identification and traceability is carried out by the structural units of the University, the Student Department, the Personnel Department, the Admissions Committee, the Deans' Offices in accordance with the Regulations on their activities.

Identification and traceability in the implementation of management processes, support processes are carried out by the relevant structural units in accordance with the Regulations on their activities.

Deans of the Academic Institutes are responsible for identification and traceability at the Dean's level.

Responsible for identification and traceability at the University level are:

The Vice-Rector for Education is responsible for ensuring identification and traceability in the educational process.

The Vice-Rector for Scientific Research is responsible for ensuring the identification and traceability of research activities.

8.5.3 Ownership of customers or external suppliers

The University ensures careful treatment of documents provided by students during the application for registration or renewal of registration and during the provision of educational services during their entire period of study at the University. The list of such documents is specified in the "Rules of admission to the University".

Managers of processes / departments that use the property of research clients or external suppliers shall ensure that it is cared for as long as the property is under the control of the University.

Terms of use of property of customers and external suppliers are drawn up in the form of contracts.

If any property of a learner or the property of a customer or external supplier is lost, damaged or otherwise found unfit for use, the learner, customer or external supplier shall be notified by drawing up appropriate protocols, acts or memos.

The head of the Student Department is responsible for the careful treatment and proper storage of documents provided by students.

The Vice-Rector for Scientific Research is responsible for the careful treatment, proper use and preservation of the property of customers of research services.

8.5.4 Saving

The University ensures the saving of results in the provision of services to the extent necessary to ensure compliance with the requirements, in particular:

- a) for educational services:

1) curricula, programs of academic courses, working programs of academic courses, which are stored in the training-methodic department and at the departments;



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2) educational and methodical, didactic and informational printed or electronic materials (educational and methodical literature, lecture notes, educational videos, computer programs, etc.) stored at the departments;

3) the results of monitoring the success of participants in the educational process (examination (test) work, calculation or calculation and graphic work, term papers (projects), exam tickets keys, etc.), stored at the departments;

4) diploma theses (graduation projects) stored in the student library;

b) for research services: contracts, agreements, reports and acts of work performed, stored in the Scientific Research Department.

The Archive operates at the University according to the Law of Ukraine "On the National Archival Fund and Archival Institutions", which is for the temporary storage of archival documents accumulated during their activities, the use of information contained in these documents for official, industrial, scientific and other purposes, as well as for protection rights and legitimate interests of citizens. The procedure for transferring documents to the archive is determined by the Instruction on Record Keeping.

Executive documents, documents on educational and scientific activities from the time of creation (receipt) and before transfer to the archives of the University are stored at the place of their formation in the structural unit (department, dean's office, and institute). Heads of structural units of the University and employees responsible for the organization of office work ensure the storage of documents and files.

The term of storage of documents is regulated by the consolidated nomenclature of records of the University with the indication of terms of storage.

Records transferred to the archives of the University after the examination of value and ordering, are placed in separate rooms adapted for storage of documents. The head of the archive is responsible for keeping the documents in the archive.

These units provide appropriate storage conditions for documents to prevent damage or improper use.

Equipment used in the educational process and research activities, such as chemical reagents for laboratories, untreated or processed materials for research facilities, and so on is also put into storage.

For students living in the halls of residence, it may also be possible to provide facilities or services related to health care, counseling, personal safety, accommodation, food, etc.

Process / department heads are responsible for organizing and ensuring the saving process.

8.5.5 Post-delivery activities

The Department of Employment and Industrial Relations carries out activities after the provision of educational services in accordance with the requirements of laws and regulations, as well as contracts to promote and ensure the employment of graduates in accordance with the regulations of the department.

The results of the assignment of graduates are registered in the relevant journal and brought to the attention of the University management.



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The University has organized and implemented the process of providing services in postgraduate education and training, which is described in the regulation "On the organization of the educational process."

The Vice-Rector for Training and Social Development is responsible for organizing and providing activities to promote the employment of graduates.

8.5.6 Change control

The University has developed and implemented a process of analyzing and monitoring changes in the provision of educational services within the limits necessary to ensure continued compliance with the requirements, and is described in the Regulation "On educational activities".

Changes in the educational process are made in the form of: working curricula, individual curricula of higher education, journal of registration of replacements of research and teaching staff and transfer of classes, a separate section in the work plan of departments and individual work plan of the research and teaching staff and its accounting.

The University provides storage of documented information describing the results of the analysis of changes, the person (s) who authorizes the change (s), as well as any necessary actions based on the results of the analysis.

The Vice-Rector for Education is responsible for organizing and monitoring changes in the provision of educational services.

8.6 Production and provision of services

At the University in accordance with the schedule of the educational process and regulations "On the organization of the educational process", "On the examination board ", "On certification of higher education and the examination board of Lviv Polytechnic National University", "On assessment of residual knowledge", "On the rating of student achievement" at the appropriate stages, planned measures are taken to verify compliance with the requirements for educational services.

The degree of implementation of the planned research works and compliance of their results with the technical tasks is determined by the reports of the heads of research works, which are considered at the meetings of the scientific councils of the academic institutes.

When performing research work (projects) at the appropriate stages, the measures planned in the schedule are taken to verify compliance with the requirements of contracts and agreements.

The University provides storage of documented information on the provision of services, which includes:

- a) evidence of compliance with the evaluation or admission criteria;
- b) traceability to the person (s) authorizing the provision of services.

The Vice-Rector for Education is responsible for organizing and providing educational services.

The Vice-Rector for Research is responsible for organizing and ensuring research activities.

8.7 Non-compliance control



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The University creates all necessary conditions for non-compliant educational services and scientific products to be identified, registered and managed to prevent their provision to consumers (customers).

The University provides identification and control of outputs that do not meet their requirements.

Educational service is considered inappropriate if its indicators do not meet the requirements of licensing and accreditation of the specialty.

Scientific products are considered inappropriate if their indicators do not meet the requirements of requests and specifications for research work. Non-compliance of scientific products with the stated requirements is determined by the Ministry of Education and Science in accordance with the results of examination of reports on completed research work, indicating the points of examination and the note "Partially completed". Such works are recommitted for revision to the heads of research works.

Discrepancies can be identified by:

- quality control of services;
- analysis of customer complaints;
- analysis of repeated appeals, orders, etc.;
- inspections of the University's activities by authorized bodies.

Detection of non-compliance of educational services or scientific products with the established requirements is the basis for decision-making and implementation of actions:

- to develop and take measures to eliminate these discrepancies;
- on the use or acceptance with a rejection of educational services or scientific products, authorized by the relevant authorized person, and, if necessary - the consumer (customer);
- on the development and implementation of measures to prevent the provision of services (products) with non-compliance.

The nature of the discrepancies, as well as any subsequent actions are recorded.

The reasons for discrepancies in services (products) can be:

- processes of providing educational services;
- processes of scientific activity;
- documentation;
- technical means, devices, computer equipment to ensure the educational process and scientific activities;
- staff;
- production environment;
- components and materials to ensure the educational process and research activities;
- other objects that affect the quality of educational services and scientific products.

Identification of discrepancies, records of the nature of discrepancies and measures taken in the course of the educational process are recorded in the Journal of registration of pedagogical staff replacements and transfer of classes, Journals of academic groups; regarding the success of the assimilation of educational material by students - in the test report of student performance, student record book, Student Study Card, summary of student performance; regarding the work of the scientific pedagogical staff - in the individual plans of the staff.



A description of actions applied to students with unfulfilled program requirements, disciplinary or administrative violations is given in the provisions "On the organization of the educational process" and "Procedure for transfer, expulsion of students and renewal of expelled persons." At the University, decisions on the application of appropriate actions to such students are made taking into account the nature of non-compliance (violation) and her (his) impact on the possibility of continuing education and ensuring the formation of relevant competencies.

After the inappropriate outputs have been corrected, a compliance check is performed.

Responsible for the process of managing inappropriate educational services are: Vice-Rectors for Research and Education, directors of academic institutes; inappropriate scientific products - Vice-Rector for Research; who interacts with the heads of structural units.

9 Assessment of effectiveness

9.1 Monitoring, measurement, analysis and assessment

9.1.1 General provisions

The University, in accordance with the established deadlines, conducts regular monitoring, measurement, analysis of improvement and assessment of activity processes, for the following:

- a) ensuring that the educational service meets the requirements set for it, the stated objectives, as well as the needs of students and society and demonstrates it to all stakeholders;
- b) ensuring compliance of the QMS with the requirements of ISO 9001 and DSTU (National Standard) ISO 9001;
- c) continuous improvement of QMS effectiveness and improvement of educational programmes and research activities.

Any changes planned or implemented as a result of this process shall be communicated to all stakeholders.

To achieve the improvement of QMS indicators, the following are determined:

- a) objects of monitoring and measurement;
- b) methods of monitoring, measurement, analysis and assessment necessary to ensure possible results, in particular statistical ones, as well as the scope of their application;
- c) schedules and timing of monitoring and measurement;
- d) timing of the analysis and assessment of the results of monitoring and measurement.

When conducting the defined at the University process of monitoring educational programmes, the following parameters are expected to be assessed:

- content of the programme from the perspective of the latest research in the relevant field in order to ensure the programme relevance;
- change in the needs of society;
- workload, academic achievements and student performance;
- efficiency of student assessment procedures;
- expectations, needs and satisfaction of students regarding the programme;
- learning environment and student support service and their compliance with the goals of the programme.

The information obtained as a result of monitoring, measurement, analysis and assessment is recorded, used to assess the effectiveness and efficiency of QMS and stored in accordance with the Regulations "Management of documented information".



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The Rector is responsible for organizing and ensuring the monitoring, measurement, analysis and assessment of QMS. Vice-rectors and Heads of Departments are responsible for the same within their responsibilities.

9.1.2 Customer satisfaction

The University monitors how customers perceive the degree of satisfaction of their needs and expectations for the quality of educational services. To ensure the possibility of analysis, research is constantly conducted on all types of services and categories of customers. Measuring the level of customer satisfaction is based on a system for collecting data obtained from questionnaires, surveys or other methods.

To improve the quality of services, the University conducts a survey regarding the satisfaction of the needs and expectations of stakeholders, as well as analyzes information on the fulfillment of their requirements. The results of customer surveys regarding their satisfaction and expectations are used by the University administration to determine current and future needs and expectations of customers to improve and increase competitive services.

The main sources of information on customer satisfaction are the results of their questionnaire or survey, the results of consideration of customers' complaints, appeals, claims and suggestions, their feedback on the services provided, meetings with customers, etc. Also, information is gathered by all available means, in particular during personal formal and informal communication, analysis of publications in the media, etc.

Information on customer satisfaction is gathered after each stage of the provision of the relevant service, and the results are necessarily considered by authorized persons in the structural units of the University in order to identify possible problems and, if necessary, take corrective actions (paragraph 10.2) or determine risks and opportunities (paragraph 6.1). This information is taken into account in the analysis of the QMS by the University administration.

The UQR is responsible for organization and assessment of customer satisfaction.

9.1.3 Analysis and assessment

The University has established and implemented methods for gathering, analyzing and using the necessary information for the effective management of the implemented educational programmes and other activities. The students and the staff are actively involved in providing and analyzing information, as well as planning future activities.

The University has developed and uses a system of indicators to assess the effectiveness of educational and scientific activities by determining rankings of the departments and AS.

The indicators to be analyzed at the University are:

- results of determining the conformity of products and services (paragraph 8.2);
- results of assessment of educational and scientific processes, including knowledge, skills and abilities of students;
- University rankings in national and world rankings of QS World University Rankings, Times Higher Education World University Ranking, national ranking Top-200 Ukraine, etc .;
- ratings of departments;
- AS ratings;
- results of student monitoring of the educational process quality;
- results of internal audits, etc.

Analysis and assessment of the data is used to determine:

- satisfaction of stakeholders;
- compliance with the requirements for educational services and scientific products;
- characteristics and trends of QMS processes and results of educational and scientific processes, including opportunities for preventive action;
- characteristics of suppliers to ensure QMS processes.



Statistical quality management methods are used to analyze the data.

The results of data analysis are presented in the form of reports, tabular and graphical forms.

The results of statistical data processing are used to clarify quality policies and objectives, develop strategic activities, introduce measures aimed at increasing the satisfaction of all stakeholders and improving the activities of the University.

The obtained data are used to identify strengths and weaknesses, make informed decisions to improve performance.

Based on the QMS reports, the UQR organizes an analysis to demonstrate the suitability and effectiveness of the QMS, as well as to assess where there is an opportunity to continuously improve its performance. The report data include results of monitoring and measurement, as well as internal audits.

The analysis results are used to assess:

- a) the compliance of services provided;
- b) the degree of customer satisfaction;
- c) the efficiency and effectiveness of the QMS;
- d) the effectiveness of planning;
- e) the effectiveness of actions taken on risks and opportunities;
- f) the efficiency of external suppliers;
- g) the need to improve the QMS.

The UQR analyzes every aspect of the QMS, using statistical methods to detect changes in characteristics such as academic performance, dropout rates, achievement records, student satisfaction, as well as an analysis of the trend in the provision of educational services.

The analysis data and relevant managerial decisions are documented and used to compare the effectiveness of the QMS, educational processes and research activities to promote continuous improvement through corrective actions (paragraph 10.2) or identify risks and opportunities (paragraph 6.1).

The UQR is responsible for organizing and ensuring the analysis and evaluation of the QMS.

9.2 Internal audit

In accordance with the annual programme of internal audits and in accordance with the Regulations "On an Internal Audit", the University conducts internal audits to determine:

- a) the compliance of the QMS with:
 - 1) the requirements established by the University;
 - 2) the requirements of ISO 9001 and DSTU (National Standard) ISO 9001;
- b) the effectiveness of introduction and support of the QMS.

To assess the efficiency of QMS and educational processes, an internal audit is performed taking into account the status and importance of the processes and areas to be audited, as well as the results of previous audits.

The heads of structural units to be audited should contribute to a timely and complete conduct of the audit, as well as ensure that actions are taken to eliminate inconsistencies and causes of their occurrence. They should also analyze the effectiveness and efficiency of the measures taken, and bring the results to the attention of employees.

Audits provide a link between process objectives and process outcomes. This identifies weaknesses and identifies measures to improve the QMS.



The results of internal audits are the basis (input data) for administration's analysis (paragraph 9.3) of the QMS, allow the University to declare its compliance with requirements of DSTU (National Standard) ISO 9001 and enable external and internal consumers to be confident in the stable quality of the educational services and scientific products, reliability and the effectiveness of the QMS.

9.3 Management System Analysis

9.3.1 General provisions

To ensure the continued suitability, adequacy, effectiveness of the QMS and its consistency with the strategic directions of the University, the University administration at the meeting of the Academic Board annually analyzes of the existing QMS in accordance with the established schedule. The administration's analysis of the QMS is based on the results of audits and information and reporting data provided by the heads of process / department, and is aimed at assessing the QMS's effectiveness in achieving goals, meeting requirements and identifying ways to improve it, as well as the need for changes, in particular, in policy and quality objectives.

The results of administration's analysis of the QMS are recorded and used in planning the processes for improving the QMS.

9.3.2 Input data for management system analysis

At the University, QMS analysis is planned and implemented taking into account:

- a) the status of actions resulting from previous analyses of the management system;
- b) changes in external and internal factors relevant to the QMS of the University;
- c) information on the efficiency and effectiveness of the QMS, covering trends regarding:
 - 1) the level of customer satisfaction, as well as feedback, complaints and wishes from stakeholders;
 - 2) the degree of achievement of the indicators stated in the policy and goals in the field of University quality;
 - 3) indicators of the efficiency of the QMS processes and the compliance of educational services provided at the University;
 - 4) status of discrepancies and corrective actions;
 - 5) results of monitoring and measurement;
 - 6) the results of internal and external audits of the QMS;
 - 7) the efficiency of external suppliers;
- d) sufficiency of resources provision;
- e) the effectiveness of actions taken in response to risks and opportunities (paragraph 6.1);
- f) opportunities and recommendations of the employees for improvement.

9.3.3 Output data for management system analysis

Based on the results of the QMS analysis, the University top management makes decisions and takes actions regarding:

- a) improving the effectiveness of the QMS and its processes;
- b) any need for changes in the QMS;
- c) improving educational services in accordance with the requirements and expectations of the customer;
- d) providing the processes with the necessary resources.

The analysis results of the QMS as a whole and the functioning of its individual processes are reflected in the relevant reports and records envisaged by the University activities, and are reflected in future work plans, corrective action plans, etc.

The Rector is responsible for organizing, preparing and ensuring the analysis of the QMS by the administration.



10 Improvement

10.1 General provisions

In order to meet customer requirements and increase customer satisfaction, the University identifies and selects opportunities to implement any necessary improvement actions. These actions include:

- a) improving educational services to meet requirements, as well as taking into account future needs and expectations;
- b) correcting, preventing or reducing undesirable effects;
- c) improving the efficiency and effectiveness of the QMS.

In order to increase the efficiency of QMS functioning, based on the results of monitoring and analysis of the QMS, internal and external audits, the QMS is improved. This is reflected in the quality objectives and work plans of the relevant structural units.

All employees of the University can submit proposals for improving the QMS. The proposals are considered in order to determine their compliance with regulatory requirements and the effectiveness of their implementation at meetings of departments, structural units, Academic Boards of AI, meetings of Scientific and Technical or Scientific and Methodological Boards.

To determine measures for improvement, the Academic or Scientific and Technical (Scientific and Methodological) Board of the University develops a plan (programme). The plan (programme) defines:

- a development manager;
- goals, directions, types of activity, processes to be improved;
- performers who are responsible for implementing the improvement;
- procedure and terms of implementation of planned measures, etc.

The plan (programme) for improvement is formed on the basis of the proposals of structural units, agreed with other structural units, the UQR and approved by the order of the Rector of the University.

The Rector is responsible for determining and implementing any necessary actions for improvement within the University, heads of departments are responsible for the same within the subordinate structural units.

10.2 Non-compliance and corrective actions

10.2.1 In case of non-compliances, the University has established requirements for taking corrective actions, determined by analyzing the non-compliance causes, in particular those related to complaints, and opportunities for improvement. Corrective actions are developed to eliminate the causes of non-compliances identified in the process of QMS functioning and providing educational services when being analyzed or audited.

A person in-charge:

- a) responds to the detected non-compliances and, as appropriate:
 - 1) performs actions for its control and correction;
 - 2) decides on the consequences;
- b) assesses the need for action to eliminate the cause (s) of nonconformity in order to prevent its recurrence or occurrence elsewhere:
 - 1) analyzes the non-compliance (in particular, customer complaints);
 - 2) determines the reasons for the non-compliance;
 - 3) determines the existence of such non-compliances or the potential for their occurrence;
- c) determines corrective measures, timing and persons in-charge to eliminate the cause of non-compliance and take necessary actions to ensure that non-compliances will not recur;



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- d) analyzes the effectiveness of any corrective action taken;
- e) if necessary, updates the list of risks and opportunities identified at planning;
- f) if necessary, amends the QMS.

10.2.2 At the University, documented information on the results of corrective actions is kept as the evidence of:

- a) the nature of the non-compliances and any subsequent actions taken;
- b) the results of any corrective actions.

Process / department Heads are responsible for making decisions on non-compliances and implementing appropriate corrective actions..

10.3 Continuous improvement

The University provides continuous improvement of the suitability, adequacy and effectiveness of the QMS.

The University provides review of the results of analysis and assessment, as well as the output data of the management system analysis, to determine whether there are needs or opportunities to be considered as components of continuous improvement.

The University ensures improvement in the effectiveness of the quality management system and educational processes, encourages its staff to develop and introduce improvement plans within its field of activity based on the policy and goals in the field of quality, using the results of audits, data analysis, taking corrective and preventive actions, as well as critical analysis by the Rector of the University.

The acceptable methods are used to identify potential for improvement, based on quality analysis and statistical methods, and include consideration of complaints, suggestions and comments from learners and stakeholders.

The Rector is responsible for the continuous improvement to the QMS within the University, the heads of processes / departments are responsible for the same within the processes / subordinate structural units.

11 Final provisions

11.1 The Regulations are approved by the Academic Board of the University and put into effect by the order of the Rector of the University.

11.2 Control over the implementation of the Regulations is carried out by the University officials within their framework of powers established in the job descriptions.

11.3 Changes and additions to the Regulations are considered and approved by the Academic Board of the University and put into effect by the order of the Rector of the University in the prescribed manner.

11.4 Revision and updating of the Regulations are carried out in the following cases:

- a) change in the requirements of national standard DSTU ISO 9001;
- b) change in the strategy, policy and goals of the University;
- c) change in the organizational management structure of the University;
- d) cancellation or replacement of documented methods;
- e) provision of new types of services.



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Annex 1

Application scope of the quality management system at Lviv Polytechnic National University

Lviv Polytechnic National University uses international and national requirements for the quality management system (QMS), established by ISO 9001 and the national standard DSTU ISO 9001, in order to:

demonstrate the University's ability to continuously provide services that meet the stakeholder and applicable legal and regulatory requirements;

enhance stakeholder satisfaction through the effective application of the system, in particular the system improvement processes and ensuring that they meet stakeholder and applicable legal and regulatory requirements.

The QMS applies to all processes of the University related to educational activities, including the provision of higher education services for the training of specialists in relevant educational, professional, academic, research programmes at the following levels of higher education: first cycle (bachelor's), second cycle (master's), third cycle (doctoral), scientific (including for international students), and also applies to research activities.

Higher education services (code 85.42 according to State Classifier of Products and Services (SCP)) and research and experimental development services (code 72.19 according to SCP).

In determining the scope of the QMS, the University authorities took into account the services provided by the University, as well as:

- a) external and internal factors, strengths and weaknesses, threats and opportunities (Annex 1.1);
- b) needs (requirements) and expectations of relevant stakeholders (Annex 1.2).

The QMS of the University educational activities takes into account all the requirements of ISO 9001 and national standard DSTU ISO 9001.



Results of Lviv Polytechnic National University activity SWOT-analysis

Strengths	Weaknesses
<ol style="list-style-type: none"> 1. Image of the University 2. Competence, experience of the University administration 3. Wide choice of educational programmes 4. High scientific potential, availability of postgraduate and doctoral studies and relevant specialized academic boards for the defense of dissertations 5. Participation of students, teachers and researchers in regional, national and international grant programmes, research projects, competitions 6. Periodical specialized scientific journals included into the national and international scientometric databases, and its own publishing center 7. Competence, experience and high qualification of the academic and scientific staff 8. Established long-term partnerships with leading companies in various fields of training specialists at the University 9. Established international scientific and educational relations, experience in training foreign citizens 10. Deepening the knowledge, skills of students, PhD students and teachers through participation in academic mobility programmes 11. Assistance of the University in the employment of graduates 12. Developed infrastructure of the University 13. Having a campus 14. Wide opportunities for sports on the basis of our own sports and recreation complex and the development of a creative personality in student teams 	<ol style="list-style-type: none"> 1. Insufficient level of knowledge of foreign languages and practical experience of academic staff and scientific workers (AS) 2. Low pay for the AS 3. Limited funding 4. Insufficient material and technical support of the educational process 5. Low responsiveness to changing labour market requirements 6. Low level of informing the society about our activities and availability of additional education programmes 7. Insufficiently flexible system of managerial decision-making 8. Ineffective system of internal information, communication and interaction between the departments of the University 9. Insufficiently effective system of motivating employees to innovate in educational and scientific processes and professional growth 10. Insufficient number of scientific papers in specialized scientific journals included into the national and international scientometric databases 11. Insufficient readiness of the AS to update educational materials in accordance with the real requirements for the competence of graduates 12. Increasing the average age of research and academic staff 13. The results of research work are insufficiently integrated into the educational process



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Opportunities	Threats
<ol style="list-style-type: none"> 1. State order for educational services 2. Expanding the list of specialities 3. Autonomy of the University 4. Multi-channel financing 5. Expanding partnerships with companies, national and international higher educational organisations 6. Use of modern information technology in the educational process 7. Development of international cooperation 8. Introduction of innovative teaching methods 9. Training of international students 10. Development and organization of new academic mobility programmes for participants in the educational process 11. International positioning in the market of educational services 	<ol style="list-style-type: none"> 1. Increasing competition among higher educational institutions 2. Economic and political situation in the country 3. Changes in legislation 4. Choice of foreign higher educational institutions by applicants 5. Changing the situation in the labour market 6. Decrease in enrollment of students due to the demographic situation and the decline in the quality of secondary education 7. Reducing the prestige of engineering (technical) specialities in general 8. Insufficient number of high-tech industries to ensure students' work placement 9. Reduction of state funding for higher education 10. Deterioration of the image of the University 11. Dismissal of highly qualified specialists, including young scientists

Annex 1.2

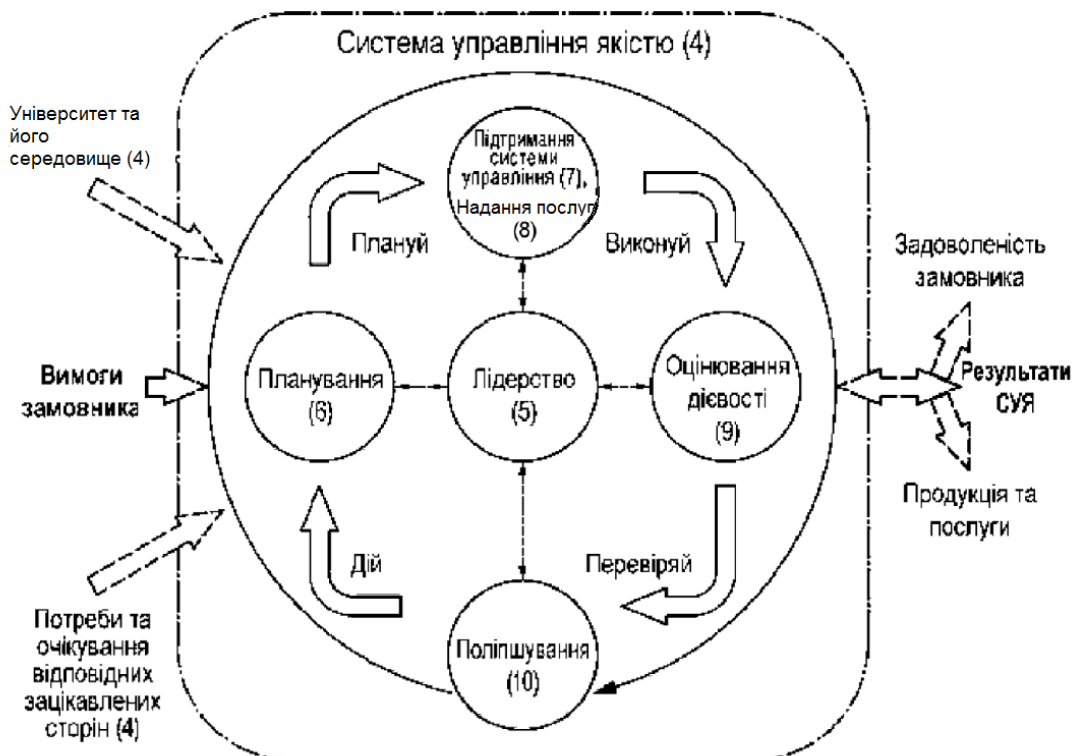
Stakeholders of Lviv Polytechnic National University, their needs (requirements) and expectations

Stakeholders	Needs (requirements) and expectations
Students and their parents	High-quality and affordable educational services; proper, comfortable and safe conditions for learning, living, doing science, sports and creativity; promoting successful employment after graduation
University staff	Proper, comfortable and safe working conditions; opportunity for professional, social and personal development
Employers and manufactures	Competent graduates (employees) possessing necessary professional skills, being able to work in a team, introduce and use modern innovations in their activities
Authorities	Competent specialists, innovative scientific developments, promotion of economic, social and scientific potential of the country (region)
Society as a whole	Upbringing culturally aware and educated citizens
Grant funds	Innovative, science intensive, technological and social research or development programmes (real start-ups)
Other educational establishments	Effectiveness and effective interaction and cooperation in the development of educational and scientific processes. Fair competition



Process approach-based QMS model

Quality Management System (4)				
University and its environment (4)	Plan	Maintenance of the management system (7), Provision of services (8)	Perform	Customer satisfaction
Customer requirements	Planning	Leadership (5)	Effectiveness assessment (9)	QMS outcomes
Needs and expectations of relevant stakeholders	Act	Improvement (10)	Inspect	Products and services



Note. The numbers in parentheses indicate the Regulations section where the process requirements are regulated.



QMS processes according to ISO 9001 and documents of the University, which contain a description of their implementation

Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
Management processes	Organization of quality management system	Defining the context (environment) of the University	Statute of the University Regulations "On the conference of the workforce" Regulations "On the quality management system" Instruction "Administration's analysis"	4.1
		Identifying the needs and expectations of stakeholders	Statute of the University Regulations "On the quality management system" Instruction "Administration's analysis"	4.2
		Defining the application area and processes of the quality management system	Regulations "On the quality management system"	4.3-4.4
		Leadership and its commitment	Statute of the University Regulations "On the Supervisory Board" Regulations "On the Academic Board of the University" Regulations "On the quality management system" Regulations "On quality assurance (quality of educational activities and higher education)" Instruction "Administration's analysis"	5.1
		Formation, implementation and updating of quality policy	Regulations "On the quality management system" Regulations "On quality assurance (quality of educational activities and higher education)" Instruction "Administration's analysis"	5.2
		Distribution of functions, responsibilities and powers within the University	Statute of the University Structure of the University Regulations "On the quality management system" Regulations "On structural units" Job descriptions	5.3
	Planning	Risk and opportunity management	Regulations "On risk and opportunity management", Regulations "On the quality management system"	6.1
		Setting goals in the field of quality and ensuring their achievement	Regulations "On the quality management system" Instruction "Administration's analysis"	6.2
		Planning for changes	Regulations "On the quality management system" Instruction "Administration analysis"	6.3
	Assessment of effectiveness and improvement	Monitoring, measurement, analysis and assessment	Regulations "On the quality management system" Regulations "On quality assurance (quality of educational activities and higher education)"	9.1



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Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
		Internal audit	Regulations "On the quality management system" Regulations "Planning and conducting internal audit" Regulations "On quality assurance (quality of educational activities and higher education)"	9.2
		Analyzing the quality management system by the University administration	Regulations "On the quality management system" Instruction "Administration's analysis"	9.3
		Inconsistency management and corrective actions	Regulations "On the quality management system" Instruction "Non-compliance and corrective actions"	10.2
		Continuous improvement	Regulations "On the quality management system" Regulations "On quality assurance (quality of educational activities and higher education)"	10.1, 10.3
Main processes (provision of educational and research services)	Organization of the educational process	Planning the educational process	Regulations "On the organization of the educational process" Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "Time norms for planning and work accounting of academic staff" Regulations "Time norms for planning and work accounting of academic staff in the organization of the educational process by distance learning technologies" Regulations "On the formation of the curriculum" Regulations on the Procedure for creating and organizing the work of the State Examination Board at Lviv Polytechnic National University Regulations "On the formation of the syllabus of the discipline"	8.1
		Educational and organizational activities	Regulations "On the organization of the educational process" Regulations "On the educational and organizational department" Regulations "Procedure for ordering and issuing documents on higher education"	7.5, 8.1, 8.2, 8.5, 8.6, 8.7
		Educational and methodical activities	Regulations "On the organization of the educational process" Regulations "On the educational and methodical department" Regulations "On the system of prevention and detection of academic plagiarism"	7.1.5, 7.5, 8.1, 8.3, 8.5, 8.6, 8.7
		Educational and analytical activities	Regulations "On the organization of the educational process" Regulations "On the educational and analytical department" Regulations "On the procedure for keeping logs of attendance and performance of students of academic groups"	7.1.5, 7.5, 8.1, 8.2, 8.3, 8.5, 8.6, 8.7



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Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
	Formation of student body	Pre-university education"	Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "On the Department of pre-university education"	8.1, 8.2
		Career guidance work	Regulations "On the organization of the educational process" Regulations "On the marketing of educational, scientific services and the labour market"	8.1, 8.2
		Admission Office operation	Regulations "On the Admission Office" Admission requirements and regulations Regulations "On the organization of the educational process"	8.1, 8.2
	Design and development of educational programmes		Regulations "On the organization of the educational process" Regulations "On quality assurance (quality of educational activities and higher education)"	8.3
	Provision of educational services	Daytime learning	Regulations "On the organization of the educational process" Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "On ensuring the right of students to choose disciplines" Regulations "On the procedure for re-crediting of academic disciplines and determination of academic difference" Regulations "Organization of the implementation of graduation projects (works)" Regulations "On students' independent work at Lviv Polytechnic National University" Regulations "On student self-government at Lviv Polytechnic National University"	8.5, 8.6
		Distance learning	Regulations "On the organization of the educational process" Regulations "On distance learning" Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "On ensuring the right of students to choose disciplines" Regulations "On distance learning course" Regulations "On the procedure for re-crediting of academic disciplines and determination of academic difference" Regulations "Organization of the implementation of graduation projects (works)" Regulations "On students' independent work at Lviv Polytechnic National University"	8.5, 8.6



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Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
		Training of foreign citizens	Regulations "On the organization of the educational process" Regulations "On quality assurance (quality of educational activities and higher education)" Regulations on the organization of admission and training of foreign citizens studying in Ukrainian (Russian) on a full-time basis at Lviv Polytechnic National University"	8.5, 8.6
		Provision of paid educational services for professional development	Statute of the University Regulations "On the organization of the educational process" Regulations "Driving courses for "B" category" Regulations "On professional development and traineeship of pedagogical and academic staff and industry experts at the University"	8.5, 8.6
	Provision of research services		Regulations "On the department of organization and implementation of R&D" Regulations "On the organization of research, scientific and technical activities"	8.5, 8.6
	Educational and extracurricular activities	Educational activities	Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "On the organization of the educational process"	8.5, 8.6, 8.7
		Ensuring scientific and creative development of students	Regulations "On quality assurance (quality of educational activities and higher education)" Regulations "On the organization of the educational process"	8.5, 9.1.2
	Control of inappropriate outputs	Transfer, expulsion and reinstatement	Regulations "On quality assurance (quality of educational activities and higher education)" Regulation "On the procedure for the elimination of academic debts" Regulations "On the procedure for the transfer, expulsion and reinstatement of students"	8.7
	Organization of work placement and employment of graduates	Interaction with enterprises	Regulations "On the department for promoting the employment of students and graduates of Lviv Polytechnic National University"	4.2, 8.2, 8.5, 9.1.2
		Promoting the employment of graduates	Regulations "On the department for promoting the employment of students and graduates of Lviv Polytechnic National University"	4.2, 8.2, 8.5, 9.1.2



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Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
	International activity		Regulations "On academic mobility of students and postgraduate students at Lviv Polytechnic National University" Regulations "On the organization of admission and training of foreign citizens studying in Ukrainian (Russian) on a full-time basis at Lviv Polytechnic National University"	4.2, 8.1, 8.2, 8.3, 8.5, 8.6, 8.7, 9.1.3
Management system support processes	Human resource management (personnel)	Staff formation	Collective agreement Regulations "On the procedure for holding a competition to fill vacancies, appointing and dismissing, extending the work term of the academic staff of Lviv Polytechnic National University"	7.1.1, 7.1.2
		Knowledge management (mentoring)	Regulations "On the Personnel Department" Regulations "On the quality management system"	7.1.1, 7.1.6
		Staff evaluation	Regulations "On certification of teachers" Regulations "Rating assessment of the activities of academic staff, departments and faculties"	7.1.1, 7.1.6, 7.2
		Professional development	Regulations "On professional development and traineeship of pedagogical and academic staff and industry experts at the University"	7.1.1, 7.1.6, 7.2
		Keeping staff informed	Regulations "On the quality management system"	7.3, 7.4
		Stimulation and motivation of staff	Collective agreement Regulations "On the procedure for awarding lecturers supervising research work of international postgraduate students and doctoral students" Regulations "On the procedure for awarding honorary titles"	7.1.2
	Management of infrastructure and environment for the functioning of processes	Telecommunication and technical support	Regulations "On the quality management system" Regulations "On the educational and research centre of information technology" Regulations "On computer networks of NULP" The procedure for working on the Internet, Regulation "On the technical information protection"	7.1.1, 7.1.3, 7.1.4
		Administrative and economic activities	Passport of the sanitary and technical position of working conditions at NULP Regulations "On the quality management system"	7.1.1, 7.1.3, 7.1.4



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Types of processes	Higher level processes	1 st level processes	Documents describing the implementation of the process	Items of ISO 9001:2015, DSTU ISO 9001:2015
		Ensuring safe working conditions (safety and sanitary conditions)	Regulations "On the quality management system" Regulations "On the Department of Labour Safety", Passport of the sanitary and technical position of working conditions at NULP Rules and instructions on labour and life safety	7.1.1, 7.1.3, 7.1.4
		Providing living conditions	Statute of the University Collective agreement Regulations "On the quality management system"	7.1.1, 7.1.3, 7.1.4
		Organization of leisure	Statute of the University Collective agreement	7.1.1, 7.1.3, 7.1.4
		Security	Regulations "On the Department of Labour Safety"	7.1.1, 7.1.3, 7.1.4
	Resource management for monitoring and measurement	Management of means of monitoring the quality of educational activities	Regulations "On the quality management system" Regulations "On the modular rating system for assessing student knowledge" Regulations "On the assessment of residual knowledge of students (conducting rector's tests in academic disciplines)"	7.1.1, 7.1.5
		Management of measuring equipment	Regulations "On the quality management system"	7.1.1, 7.1.5
	Information, library and publishing activities	Scientific and technical library operation	Regulations "On the scientific and technical library" Rules of scientific and technical library	7.4
		Publishing activity	Regulations "On the publishing centre"	7.1.1, 7.1.3, 7.1.4
	Informing and advertising	Informing	Instruction "Internal informing of personnel"	7.4
		Public information	Regulations "On the quality management system" Regulation "On ensuring access to public information at Lviv Polytechnic National University"	
		Advertising	Regulations "On the educational and research centre of information technology"	7.4, 8.2
	Management of documented information	Management of documented QMS information	Regulations "On the quality management system" Regulation "Management of documented information" Instruction "Procedure for preparing regulations on structural units"	7.5
		Office work	Instructions for office work	7.5
	Customer ownership control	Saving students' documents	Regulations "On the archive" Regulations "On the personnel department"	8.5.3
	Financial and economic activities	Public procurement	Regulations "On pre-threshold purchases of goods, works and services", Regulations "On the tender committee"	7.1, 8.4
		Financial activity	Regulations "On the provision of state targeted support to certain categories of students related to living in halls of residence of Lviv Polytechnic National University"	7.1



The responsibilities and powers allocation matrix for the processes of the University QMS

Quality management system processes		University administration										
		Rector	First Vice-rector	Vice-Rector for SPW (responsible for the content of education) - RRforQ	Vice-Rector for SPW (responsible for organizing the educational process)	Vice-Rector for Research	Vice-Rector for SPW and International Relations	Vice-Rector for Economic Affairs - Chief Accountant	Vice-Rector for SPW and Social Development	Vice-Rector for training and production work	Academic Secretary of the University	Heads of structural units
According to ISO 9001, DSTU ISO 9001:2015	1 st level processes	3	4	5	6	7	8	9	10	11	12	13
1	2	3	4	5	6	7	8	9	10	11	12	13
Understanding the organization and its environment	Defining the environment of the University	M*	C†									
Understanding the needs and expectations of stakeholders	Identifying and monitoring the needs and expectations of stakeholders		M	C		C						
Defining the application scope of the quality management system	Defining the application scope and processes of the quality management system	M		C								
Quality management system and its processes	Development, implementation, support and improvement of QMS	M	C	C	C	C	C	C	C	C	C	C
Leadership and commitment	Leadership and its commitment	M										M
Formation of the quality policy and informing about it	Formation, implementation and updating of quality policy	M										

* M (process manager) - manages activities (process, function, work, event) and makes the final decision, is responsible for the final results. The process manager is responsible for ensuring planning, organizing the proper implementation of the process and evaluating its effectiveness.

† C (співвиконавець) – організовує чи безпосередньо виконує функцію (роботу) та відповідає за якість її виконання в межах його функціональних обов'язків.



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Functions, responsibilities and powers within organization	Responsibilities and powers allocation within the University	M										M
Actions on risks and opportunities	Risks and opportunities management		M									M
Quality objectives and action planning to achieve them	Setting quality goals and ensuring they are met	M		C								M
Planning for change	Planning for change	M		C								C
Resources	Identification and allocation of necessary resources	M						C				
Human resources	Staffing	M	C									C
	Organization and provision of human resource management		M			C						C
Infrastructure	Telecommunication and technical support				M							
	Administrative and economic activities									M		
	Publishing activity			M								
Environment for the functioning of processes	Ensuring safe working conditions (safety and sanitary conditions)									M		
	Providing living conditions									M		
	Security										M	
	Organization of leisure									M		
Resources for monitoring and measurement	Management of means of monitoring the quality of educational activities		M	C	C							
	Management of measuring equipment					M						
Knowledge of the organization	Managing the knowledge needed to achieve goals											M
Competence	Personel assessment		M									C
	Professional development		M									C



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Awareness	Awareness assurance			M	C	C							C
Informing	Internal informing			C	M								C
	Public information				M								
	Advertising								M				C
	Library activity			M									C
Documented information	Management of the documented QMS information			M									
	Office work (document flow)		M		C								
Operational planning and control	Planning of educational activities	M	C	C	C	C	C	C	C	C	C	C	C
	Educational and organizational activities				M								
	Educational and methodical activity			M									
Requirements for products and services	Pre-university training				M				C				
	Career guidance work				M								C
	Operation of Admission Office	M	C										
	Licensing and accreditation		M										C
	Interaction with enterprises		M			C							C
Design and development of products and services	Design and development of educational programmes and scientific work		M	C		M							C
Control of externally provided processes, products and services	Public purchases								M				
Provision of services	Daytime learning			M									
	Distance learning				M								
	Training of foreign citizens					M							
	Providing paid educational services for a professional development			M									
	Providing research services					M							
	Educational activities			M					C				



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	Ensuring scientific and creative development of students					M				C			
	Control of the educational services customer's property (students' documents)		M		C								
	Control of the research services customer's property (in accordance with the terms of the contract)					M							
	Promoting the employment of graduates								M				
Release of services (verification of compliance with requirements)	Monitoring and evaluation of students' performance			M		C	C						M
	Certification		M			C							C
	Assessment of research results					M							C
Control of inappropriate outputs	Transfer, expulsion and reinstatement of students			M		M	C						
Monitoring, measurement, analysis and assessment	Monitoring, measurement, analysis and assessment	M	C	C	C	C	C	C	C	C	C	C	C
Internal audit	Internal audit			M									C
Management system analysis	QMS analysis by the University administration	M		C									C
Non-compliance and corrective actions	Noncompliance management and corrective actions	M	M	M	M	M	M	M	M	M	M	M	M
Continuous improvement	Continuous improvement	M	M	M	M	M	M	M	M	M	M	M	M

