December 27, 2019

DEVELOPMENT STRATEGY AND CONCEPT

**Ternopil Ivan Puluj National Technical University**

Adopted by the conference of the staff

of Ternopil Ivan Puluj National Technical University

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# Ternopil

# 2019

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**MISSION and PURPOSE of the University**

**Mission**

Create conditions for providing quality education through free creative learning and scientific research in accordance with the social needs arising from the development of Ukraine, science, economy, and culture, as well as the global processes of human civilization development.

**Our values** are the behaviors and traits that we expect from everyone who wants to join the university; they determine the mutual attitudes of those who work and study within it.

####  Humanity, Dignity, and Honor

####  We make efforts to seek, attract, engage, and retain the best individuals for every position. We encourage continuous learning and the development of a harmonious personality. We create a professional environment where people of different cultures work effectively for the development of the university and Ukraine, constantly raising the level of education and science. We provide opportunities for scientific, professional, and creative growth, and we recognize employees based on one criterion only - results.

####  Trust

#### We approach each other with trust and respect. We have trust in each other's abilities and intentions, believing that people work better based on trust.

#### Leadership and high standards

#### We encourage personal leadership, responsibility, and a sense of duty. We abide by the law and are a multilingual university. We demand adherence to high standards and ethical behavior from ourselves. We respect the spiritual and cultural traditions of the university, preserving and developing them.

####  Purpose

#### To promote self-realization of students, faculty, and staff of the University and to cultivate highly educated, nationally conscious, and harmoniously developed individuals capable of independent thinking and acting according to the principles of goodness and justice.

#### Main directions of the activity

1. Educational process.
2. Scientific-research and innovative activity.
3. International cooperation.
4. Staffing.
5. Financial and economic activity.
6. Management and administration.
7. Youth policy and student self-government.

The priorities, goals, budget, and responsible persons are specified for each direction.

# University Development Strategy until 2025

#### The University is eager to become:

* **a leading** technicaluniversity in the Western region of Ukraine;
* **an educational-scientific center** of guaranteed high quality;
* **a desirable** job for scientists and lecturers;
* **an investment-attractive** scientific-educational-production project;
* **a community** that adheres to universal human values and democratic principles of freedom and responsibility.

***Educational process***

#### Educational process quality

Ensure the quality of the educational process in accordance with international standards by implementing innovative educational technologies, aligning with international professional standards, and meeting the needs of the labor market. Develop educational programs based on a competency-based approach in line with the levels of the National Qualifications Framework. Ensure compliance with licensing requirements.

**Goal**: Improve the quality of education and prepare professionals with relevant competencies.

**Budget**: Funds from the general and special funds of the state budget.

**Responsibilities**: Rectorate, deans of faculties, department heads, program coordinators.

1. **Internal quality assurance system of the educational process**

Develop an internal quality assurance system for higher education and scientific-technical activities in accordance with the ISO 9001-2015 standard. Regularly conduct external and internal audits of educational activities.

**Goal:** Monitor and improve the quality of the educational process, identify and address any deviations in its implementation.

**Budget:** Funds from the general and special funds of the state budget.

**Responsibilities:** Vice-rector, deans of faculties, department heads, education quality assurance department, internal auditors.

1. **Distance learning**

Update the database of electronic educational courses for bachelor's, master's, and doctoral programs. Improve testing and knowledge assessment systems. Facilitate group collaboration among users (students and academic staff) through multimedia technologies. Maintain a rating system for educational courses based on quantitative and qualitative indicators, taking into account suggestions and feedback from students who have completed the courses. Expand the network of Local Electronic Learning Centers in Ukraine and abroad.

**Goal**: Enhance the quality of the educational process, including independent student work, ensure objective assessment of student knowledge, free up physical space, and attract applicants from different regions and countries to university education.

**Budget**: Funds from the special fund of the state budget.

**Responsibilities:** Vice-rector for academic affairs, deans of faculties, department heads, Center for E-Learning.

1. **Dual education**

Develop educational programs based on the principles of dual education in collaboration with employers. Together with representatives of the Employers' Council, create a list of elective disciplines. Develop educational and methodological support for dual education.

**Goal:** Improve the quality of the educational process, taking into account the requirements of employers, ensure students acquire practical competencies, align the educational content with the needs of the labor market and the prospects of economic sectors.

**Budget**: Funds from the special fund of the state budget, funds from partner enterprises.

**Responsibilities**: Vice-rector, deans of faculties, heads of departments, educational department, Pre-University Training and Career Guidance Center.

1. **Adult Education**.

Create conditions for the implementation of the "Lifelong Learning" concept. Develop educational and methodological support for adult education using distance learning technologies.

**Goal**: Provide adults with the opportunity to obtain higher education.

**Budget**: Funds from the special fund of the state budget, state and regional programs, enterprises, regional and municipal Employment Centers, individuals.

**Responsibilities**: Vice-rector, heads of graduation departments, educational department, Retraining and Postgraduate Education Center.

1. **Doctoral Education (PhD).**

Improve the doctoral education programs. Accredit third-level educational programs for doctoral education in specific fields. Ensure the quality improvement of doctoral education through collaboration with foreign universities. Establish specialized councils for the defense of dissertations.

**Goal**: Improve the system of higher research qualification training, taking into account global experience, increase the effectiveness of the new type of graduate studies.

**Budget**: Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities:** Vice-rector for research, heads of graduation departments, educational department, department of postgraduate and doctoral studies, research department.

1. **Informatization of the educational process.**

Based on international experience, introduce state-of-the-art software products into the educational process. Update computer labs. Continue the technical equipping of lecture halls and conference rooms with multimedia and networking equipment, including wireless communication technologies.

**Goal:** Improve the quality of education, ensure the rational use of labor and time of academic staff and students, modernize the technical support of the educational process and teaching methodology.

**Budget**: Funds from the special fund of the state budget, national and international grants.

**Responsibilities:** Vice-rector, heads of departments, e-Learning Center, academic staff, educational department.

### Scientific-research and innovative activity

1. **Accreditation of the university's scientific activities.**

Ensure the fulfillment of qualitative and quantitative indicators during the state accreditation of the university regarding scientific (scientific and technical) activities. Ensure the combination of fundamental research with progressive applied developments and technologies. Increase the number of publications in leading international scientific journals per scientific and pedagogical staff member. Enhance the status of scientific journals published by the university. Conduct an external audit of scientific activities.

**Goal:** Confirm the status of a leading technical university in the Western region of Ukraine.

**Budget**: Funds from the general and special funds of the state budget, national and international grants, funds from contracting enterprises for applied scientific and scientific-technical developments.

**Responsibilities:** Rectorate, Vice-Rector for Scientific Work, Research Division, Departments/Laboratories, Department of Education Quality Assurance.

1. **Fundamental and applied scientific research.**

Promote the development of existing scientific schools and the emergence of new ones. Facilitate the participation of university staff in competitions for obtaining Ukrainian and international grants. Support projects aimed at solving fundamental scientific problems and tasks. Direct applied scientific research towards a complete innovation cycle of development. Monitor and evaluate the needs of regional economic entities in applied developments. Participate in the implementation of innovative programs at the city and regional levels. Provide informational support for scientific research and the transfer of their results.

**Goal**: Activate scientific activity, attract funding for fundamental and applied scientific research, promote the expansion of international scientific cooperation.

**Budget**: Funds from the general and special funds of the state budget, regional and local budgets, national and international grants.

**Responsibilities:** Rectorate, Vice-Rector for Scientific Work, Vice-Rector for International Cooperation, Research Division, Departments/Laboratories.

1. **Commercialization of the results of scientific and scientific-technical activities.**

Establish innovative enterprises based on the University and ensure their effective operation. Develop algorithms for supporting scientific units by enterprises and companies. Transform the results of scientific and scientific-technical activities into innovative products for further commercialization. Increase the number of applications for intellectual property rights registration and raise the level of their implementation with subsequent commercialization.

**Goal:** Implementation and commercialization of research results.

**Budget**: Funds from enterprises, companies, and firms.

**Responsibilities**: Vice-Rector for Scientific Work, Research Division, Departments/Laboratories.

1. **Stimulating scientific activity.**

Implement the idea of combining science and education; attract promising researchers to work at the university, including talented young scientists; appoint researchers with degrees of Ph.D., Doctor of Philosophy, and Doctor of Science to positions in research laboratories. Improve the system of incentives for researchers based on significant scientific achievements. Support researchers' participation in international conferences and internships abroad.

**Goal**: Activate scientific activity and strengthen the educational component, involve doctoral students in research, and expand international cooperation.

**Budget:** Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities**: Rectorate, Planning and Finance Department, Research Division, Departments/Laboratories.

1. **Research infrastructure**.

Transform the university into a modern scientific, educational, and innovative complex that provides conditions for fundamental and practical training of professionals through the creation of joint laboratories, centers, including shared equipment facilities, with enterprises and institutions. Improve the infrastructure for international scientific cooperation.

**Goal**: Establish a research base to enhance the quality of education and conduct scientific research; expand opportunities for engaging domestic and foreign partners in university development through joint projects, and involve domestic businesses in funding specific projects.

**Budget**: Funds from the general and special funds of the state budget, national and international grants, sponsorship funds.

**Responsibilities**: Vice-Rector for Scientific Work, Vice-Rector for Economics and Development, Planning and Finance Department, Research Division, individuals initiating the creation of this substructure and willing to act as project coordinators.

### International cooperation

1. **Internationalization of educational activities and content.**

Aligning the content of the University's educational programs with those of partner foreign universities. Bringing the content of educational disciplines closer to the best international standards and introducing "mobility windows" in the curriculum. Creating international educational programs. Implementing programs that offer the opportunity to obtain internationally recognized certificates. Developing the university's information system to facilitate international connections.

**Objective**: To enhance the quality of the educational process, establish a positive image of the university in the international scientific and educational environment, and create opportunities for academic mobility for students and academic staff.

**Budget**: Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities:** Vice-rector for international cooperation, deans of faculties, heads of departments, program coordinators, the International Cooperation Department, Center for Foreign Languages.

1. **Multilingual and cross-cultural training of students and academic staff:**

Improving the quality of foreign language training for higher education applicants and academic and scientific staff through the modernization of educational programs and teaching materials, including the use of foreign-language teaching materials. Engaging students in participation in summer language schools, trainings, internships abroad, etc. Introducing the teaching of subjects in English for Ukrainian students. Increasing the quantity and quality of English-language programs for foreign students. Facilitating communication between foreign and Ukrainian students through roundtable discussions, seminars, and other educational and entertainment events.

**Objective**: To enhance the quality of the educational process and create conditions for academic mobility for students and academic staff.

**Budget**: Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities**: Vice-rector for international cooperation, deans of faculties, heads of departments, program coordinators, the International Cooperation Department, Center for Foreign Languages.

1. **Academic mobility**.

Engaging students in dual-degree programs. Activating the participation of students, postgraduates, doctoral students, academic and administrative staff in international exchange programs, particularly within the framework of the Erasmus+ program (KA1), DAAD, Fulbright, and others. Developing virtual international mobility based on distance learning technologies. Improving the procedure for recognizing academic achievements of students obtained during studies abroad. Developing cooperation between the university and foreign recruitment agencies for the employment of graduates. Expanding the practice of involving foreign instructors in the educational process at the university.

**Objective**: To enhance the quality of the educational process and ensure academic mobility for students and academic staff.

**Budget**: Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities**: Vice-rector for international cooperation, deans of faculties, heads of departments, coordinators responsible for international activities at faculties and departments, the International Cooperation Department, Center for Foreign Languages.

1. **Internationalization of scientific activities**.

Establishing international partnerships and research networks with foreign universities, businesses, and other institutions. Encouraging the participation of academic staff in international projects for joint research. Publishing monographs and scientific articles jointly with foreign partners in publications included in international scientific databases (Web of Science, Scopus). Organizing international scientific conferences, forums, and seminars.

**Objective**: To enhance the quality of research, raise the university's ranking, and promote the scientific and academic staff.

**Budget:** Funds from the general and special funds of the state budget, national and international grants.

**Responsibilities**: Vice-rector for international cooperation, deans of faculties, heads of departments, coordinators responsible for international activities at faculties and departments, the International Cooperation Department, Center for Foreign Languages.

### Staffing

1. **Efficiency of scientific and pedagogical staff.**

Create conditions for implementing the Prospective Staffing Plan of the university and the Professional Development Plan for scientific and pedagogical staff, including abroad. Improve the performance evaluation system of scientific and pedagogical staff. Develop a system for monitoring employee satisfaction with their work. Develop and implement a succession planning system for managerial staff.

**Objective**: Improve the level of higher qualification personnel training, enhance the professional competence of the university's faculty, create a reserve of managerial staff for departments, faculties, and the rectorate.

**Budget**: funds from the special fund of the state budget, sponsors.

**Responsible**: rectorate, education quality assurance department.

1. **Employee motivation.**

Develop a transparent system of recognition and professional advancement for employees. Improve the motivation system for scientific, pedagogical, and other categories of staff, including the introduction of pay differentiation based on performance ratings. Encourage the scientific activity of young researchers. Establish incentive funds. Provide moral encouragement to employees.

**Objective**: Create conditions for the moral and material motivation of university staff, improve staffing.

**Budget**: funds from the special fund of the state budget, sponsors.

**Responsible**: rectorate.

### Financial and economic activity

1. **Sustainable development of the university.**

Diversify the sources of funding for the university's activities by expanding the range of paid educational and other services, increasing revenue from other sources, and rational and economical expenditure. Create financial and economic mechanisms to ensure the university's activities in case of temporary funding difficulties in providing educational services.

**Objective**: Seek additional sources of funding for the university's development.

**Budget**: funds from the general and special funds of the state budget, other sources of funding.

**Responsibilities:** vice-rectors for specific areas, deans of faculties, planning and financial department.

1. **Material and technical support of the university's activities.**

Develop the experimental and production base of the university. Improve the material and technical support and create favorable conditions for the education, living, and work of students and staff, prioritizing and concentrating financial and material resources. Ensure compliance with licensing requirements for the material and technical support of the educational process (educational premises, laboratory and computer facilities, sports facilities). Ensure efficient use of materials, energy resources, safe operation of buildings, facilities, and engineering networks. Provide sanitary and hygienic working conditions. Develop and implement an Energy Saving Program. Ensure occupational health and safety standards in all areas of activity.

**Objective**: Ensure the efficient functioning of the university.

**Budget:** funds from the general and special funds of the state budget, other sources of funding.

**Responsibilities**: vice-rector for economics and development, vice-rector for administrative and economic work and construction, planning and financial department, economic departments.

1. **Social and cultural infrastructure**.

Ensure cooperation between the university administration and the primary trade union organization in negotiating and implementing the Collective Agreement. Improve the system of catering for staff and students. Create conditions for the leisure of university staff, students, and their families. Improve the material and technical support of sports facilities and social-cultural facilities within the university. Complete the construction of the stadium and sports facilities in a unified sports and recreational and cultural-educational center. Begin the construction of the engineering and laboratory building at 8 Gogol Street. Develop and adapt the university's infrastructure for people with special needs.

**Objective**: Establish social infrastructure to ensure the efficient functioning of the university.

**Budget:** funds from the general and special funds of the state budget, other sources of funding.

**Responsibilities**: vice-rector for economics and development, vice-rector for administrative and economic work and construction, planning and financial department, economic departments.

### Management and administration

#### University image.

Develop a comprehensive set of measures for branding and marketing the university in the domestic and international markets of educational and scientific services. Monitor the activities of key competitors. Improve the English version of the university's official website, utilize social media and other online platforms for advertising and informational campaigns. Identify a list of priority international university rankings in which the university participates and take necessary steps to improve its positions in these rankings. Maintain communication with foreign alumni and Ukrainian citizens working abroad. Create a guidebook (electronic and paper) for the adaptation of international students.

**Objective**: Create a positive image of the university to promote it in the international educational and scientific space.

**Budget**: Funds from the general and special funds of the state budget.

**Responsibilities**: Vice-Rector for International Cooperation, deans of faculties, department heads, International Cooperation Department, Benchmarking and Web Management Center, International Education Center.

* 1. **University Management.**

Improve the regulatory framework of the university's activities, including university management. Ensure the quality of educational process management. Develop an effective model of university management that considers modern challenges. Enhance the mechanism of prospective planning of university activities and process optimization. Conduct an audit of the university's structure, including the interaction of structural units, delineation and balancing of functions and responsibilities between them. Improve internal communication, mechanisms for attracting funds and other resources, and control over their utilization.

**Objective**: Ensure effective university management.

**Budget**: No additional funds required.

**Responsibilities**: Rectorate, Education Quality Assurance Department, Human Resources Department, deans of faculties, department heads, Organizational and Legal Department.

* 1. **IT Development in all areas of activity**.

Ensure further development of IT in the university based on modern technologies in the following areas: development of information and communication and information-educational environments, IT project development and implementation, improvement of the university's information systems, provision of IT services, promotion of the university in the IT space.

**Objective**: Ensure practical use of modern information technologies in management and other areas.

**Budget**: Funds from the special fund of the state budget, sponsorships.

**Responsibilities:** First Vice-Rector, deans of faculties, department heads, Center for Information Technology.

1. **Electronic document flow and administrative process management system.**

Develop and implement a monitoring system for key administrative processes and performance indicators of the university, including those affecting the implementation of the development strategy. Conduct monitoring and define the main document flow procedures in the university. Create an electronic records management system with modules to support document flow procedures, considering the specificities of record keeping in the university with the possibility of secure remote access. Patent the electronic document flow system and develop a mechanism for its popularization and implementation in other higher education institutions.

**Objective**: Reduce material and time costs, ensure prompt delivery of information to performers, increase the efficiency of administrative process management.

**Budget**: Funds from the special fund of the state budget, sponsorships.

**Responsibilities**: First Vice-Rector, deans of faculties, department heads, Center for Information Technology.

1. **Corporate Ethics.**

 Maintain and develop the University's traditions that shape corporate ethics and promote civic and European self-identification and patriotism among participants in the educational process. Develop a system for studying the public opinion of students and staff on the most important issues of university life. Support the activities of the Alumni Association. Improve the system of university awards for merit to the university. Organize and arrange the university campus with the placement of university symbolism. Create an electronic museum of Ivan Puluj. Conduct Puluj Readings. Develop a corporate style.

**Goal**: Improve the psycho-pedagogical climate in the university, instill in students and members of the workforce a sense of responsibility for the results of their activities.

**Budget**: Funds from the special fund of the state budget, sponsorship funds.

**Responsibilities**: University administration, Department of Youth Affairs and Public Relations, museum management, deans, department heads, academic and teaching staff, students.

1. **Feedback, control, and tools to ensure the implementation of the University Strategy.**

Develop an action plan for implementing the Development Strategy based on project management principles (identify activities, responsible parties, and deadlines for completion). Monitor the implementation of the Strategy. Provide legal support for the implementation of the strategy (if necessary, update the existing regulatory framework).

**Goal**: Ensure the implementation of the Strategy and, if necessary, adjust its main provisions.

**Budget**: No additional funds required.

**Responsibilities**: University administration, Department of Quality Assurance in Education.

***Youth Policy and Student Self-Government***

1. **University Prestige**

Develop a university environment aimed at shaping students' knowledge of economic, political, historical, corporate, and informational culture, as well as their upbringing in a patriotic spirit and promotion of a healthy lifestyle. Implement principles of freedom and independence for students in educational and scientific activities. Transform the university into a desirable place of learning.

**Goal**: Increase the prestige of the university, students, as well as graduates and the university's diploma in the job market.

**Budget**: No additional funding required.

**Responsibilities**: Rectorate, deans of faculties, youth affairs and public relations department, student self-government bodies, university community.

1. **Youth Policy**

Develop leadership qualities and active civic positions in the student population, involving them in volunteer activities. Support the activities of the Council of Young Scientists at the university and the Student Scientific Society. Foster cooperation between the university administration, student self-government bodies, and the student and graduate student union. Develop an information monitoring system called "Teacher through the Eyes of Students."

**Goal:** Create conditions for fulfilling the mission and goals of the university.

**Budget**: No additional funding required.

**Responsibilities:** Rectorate, student self-government bodies, Council of Young Scientists.

1. **Activities of Student Self-Government Bodies**

Promote the development and support the activities of student self-government bodies, including providing necessary resources and financial assistance. Engage students and graduate students in accomplishing the university's tasks. Support the implementation of social and labor initiatives of students, their acquisition of professional, labor, and managerial skills, as well as students' employment. Develop a regulatory framework for student life at the university.

**Goal:** Create conditions for student self-realization through work in student self-government bodies.

**Budget**: General and special funds from the state budget, student self-government funds.

**Responsibilities**: Rectorate, student self-government bodies.

1. **Improvement of Living Conditions**

Develop a Plan of Measures to improve the living conditions of students in dormitories for the years 2020-2025. Student self-government bodies have priority in determining and complying with the norms of student life.

**Goal:** Provide decent conditions for studying, living, and leisure for students based on student-centered principles.

**Budget:** Special funds from the state budget, student self-government funds.

**Responsibilities:** Rectorate, student self-government bodies.

**UNIVERSITY DEVELOPMENT CONCEPT**

**Brief description of the university**

 The status of the Ivan Puluj Ternopil National Technical University as a national institution was granted by the Decree of the President of Ukraine No. 1024 on December 11, 2009.

 The university has been a member of the European Association of Universities (EAU) since 1999 and one of the founders of the Scientific Park "Innovation and Investment Cluster 'Ternopil Region'."

 Educational and scientific activities are provided by the faculties of Engineering of Machines, Structures, and Technologies; Applied Information Technologies and Electrical Engineering; Computer Information Systems and Software Engineering; Economics and Management, as well as the Technical College of TNTU named after I. Puluj, Husiatyn College of TNTU named after I. Puluj, and Zboriv College of TNTU named after I. Puluj.

 The university offers education and training at all levels of professional and higher education, from workers to masters, PhDs, and doctoral degrees. The university provides retraining for professionals to obtain a second higher education, professional development, and preparation for admission to higher education institutions for foreigners and stateless individuals. Over the course of the university's existence, more than 35,000 highly qualified specialists have been trained.

**EDUCATIONAL ACTIVITY CONCEPT**

The concept of educational activity at the University encompasses its goals, principles, target programs, and means of implementation.

The **goal** of educational activity is to ensure organizational, educational, methodological, scientific research, and innovative activities aimed at providing services for obtaining a certain degree of higher education with the issuance of the corresponding document.

**Principles** of educational activity at the University:

1. continuity, comprehensiveness, continuity, and professionalism of education at all levels of professional training;
2. improvement of management structure to ensure the implementation of a systematic approach and democratic principles of teaching and education, coherence of all elements of the educational process, effective scientific research, self-development, and improvement;
3. ensuring educational functions as a multi-profile educational institution focused on high-quality education through the combination of educational, scientific, and innovative activities;
4. cooperation with employers in improving educational programs and practical training of students;
5. ensuring high qualifications and professionalism of scientific, pedagogical, scientific-pedagogical, and educational personnel, creating conditions for their qualitative growth, formation, and development of scientific schools;
6. integration of the University into the international education and scientific system to create and develop effective connections, free and mutually enriching contacts, and cooperation between students, scientific-pedagogical, scientific, and educational personnel with national scientific and educational institutions of other countries.

**Target programs** of educational activity at the University:

1. integration into the international education and scientific system;
2. implementation of the principle of lifelong learning;

3) implementation of modern information (including distance) learning technologies, design, and scientific research;

4) implementation of the Concept of Scientific Clubs' activities;

5) implementation of the Concept of Foreign Language Training for students.

6) integration of research components in the execution of coursework projects and qualification works.

7) acquisition of entrepreneurial and innovative skills by students.

8) enhancement of the level of legal education for professionals.

9) cultivation of national consciousness among citizens.

**Means of implementing the target programs** of educational activity at the University:

1. development of the Strategy and Concept of development;
2. improvement of the management structure and system;
3. enhancement of the internal quality assurance system for educational activity and the quality of higher education;
4. development of national education, science, and culture;
5. development of scientific schools and formation of promising research directions;
6. construction and improvement of the material and technical base;
7. expansion of funding sources.

**CONCEPT OF SCIENTIFIC ACTIVITY**

The university is a center for scientific research in modern engineering and technology, a hub for the upbringing, selection, and training of highly qualified scientists and specialists, and the formation and development of scientific schools.

The main **goal** of scientific, scientific-technical, and innovative activities is to acquire new scientific knowledge through research and development, and to direct them towards the creation of competitive technologies, equipment, materials, theories, concepts, etc., to ensure the innovative development of society and the training of innovative professionals.

The **tasks** of the university's scientific, scientific-technical, and innovative activities are:

1. obtaining competitive scientific and scientific-applied results;
2. strengthening the research component of course projects and qualification works of university students;
3. formation of a modern scientific personnel potential capable of developing and implementing scientific developments.

**The main components of scientific activity** at the university include:

* fundamental and applied scientific research;
* training of scientific and pedagogical staff through master's, doctoral, and post-doctoral programs;
* increasing the number of permanent specialized and ad hoc committees for defending dissertations;
* scientific work of students;
* formation and development of scientific schools and research groups;
* organization and conduct of scientific-technical and scientific-educational conferences;
* commercialization of the results of scientific and scientific-technical activities;
* exchange of researchers;
* patent and licensing work;
* information support for research and development;
* publishing activities;
* implementation of measures to prevent academic plagiarism.

**Main scientific schools and directions:**

The University includes 14 scientific schools and has 18 research laboratories that conduct research in the following main scientific directions:

Fundamental and applied problems of material and structural element failure mechanics, ensuring durability and extending the service life of products.

Technologies and tools for mathematical modeling, system analysis, optimization, and computational methods for analyzing structural elements.

Targeted fundamental and applied research on physical, electrical, and magnetic properties of materials, obtaining new materials, and optimizing their structure.

Technologies and tools for software development and systems, information security technologies and tools.

Modern information, communication, and computer-integrated technologies, automation of technological processes, and robotics.

Development of equipment and devices for scientific research, remote sensing of the Earth, secondary power sources, and diagnostics in the fields of medicine and biology.

Development of transportation-technological, agricultural, and other machinery, equipment for the food and processing industries, metal-cutting machines, and vehicles.

Development of equipment, devices, and tools for machine building, radio engineering, food, processing industries, and agriculture.

Development and application of technologies for obtaining, welding, joining, diagnosing, and processing structural, functional, and composite materials.

Technologies of power engineering and energy management, creation, research, and implementation of alternative energy sources.

Technologies of rational water use, increasing the efficiency of wastewater treatment, prevention of water pollution, and utilization and disposal of household and industrial waste.

Promising technologies for the agro-industrial complex, processing, and food industries, issues of ensuring food security.

Development of standards and technologies for promoting a healthy lifestyle, technologies for improving the quality and safety of food products.

Development and improvement of management and economic models in the conditions of a market economy.

Issues of personal and social development, demography, and socio-economic policy.

**Prospects for improving the material-technical and financial support of scientific activities:**

Increasing the volume of scientific topics carried out by university teams. In university project competitions on budgetary topics, support is primarily provided to established scientific schools and leading research groups in the field.

 Attracting extrabudgetary funds, including participation in competitions such as the State Fund for Fundamental Research and Development (DFFD), TEMPUS, NATO, international funds, the National Space Agency of Ukraine, sectoral ministries, implementation of state contracts for enterprises, and participation in the implementation of innovative programs of the city and region.

 Expanding cooperation with research institutes of the National Academy of Sciences of Ukraine, Ukrainian and foreign universities, and firms in terms of coordination and conduct of scientific research, including through shared equipment facilities.

 Publication of university scientific journals in English to be included in international scientometric databases.

 Establishment of innovative structures of various types (scientific and technological parks, business incubators, etc.) for the commercialization of research results.

**CONCEPT OF INTERNATIONAL ACTIVITIES**

The university is a scientific and educational institution closely integrated into the national and international education and research systems. It establishes and develops connections with leading scientific and educational institutions, providing opportunities for student, academic, and faculty mobility.

The concept of university internationalization is a declaration of the university's commitments to achieve goals and fulfill tasks in the field of international cooperation, **aiming** to enhance the quality of educational and research activities and align them with international standards of higher education. The internationalization policy is an integral component of the university's overall development strategy and a tool to ensure competitiveness in the national and international educational and research space.

The university considers international cooperation as a priority in all aspects of its activities, acknowledging and facilitating the implementation of European Union documents in higher education, such as:

- Standards and Guidelines for Quality Assurance in the European Higher Education Area.

- Erasmus Charter for Higher Education.

 - Erasmus Student Charter.

The main **directions** of the university's international activities are as follows:

1. preparing foreign nationals for admission to the university and higher education institutions in Ukraine;
2. conducting educational activities related to the education of foreign students and the training of scientific personnel;
3. organization of education under double degree programs;
4. implementation of academic mobility for teachers and students;
5. conducting research and scientific-technical developments within international projects.

The **integration of the university** into the European educational space includes:

- participation of the university in international rankings of higher education institutions;

- organization of the educational process taking into account international experience;

- university's activities within the European University Association;

- development of educational programs and training of specialists based on the best European practices;

- implementation of effective teaching methods and technologies;

- participation in international research and educational projects;

- increasing the number of disciplines taught in English to 50% for educational programs at the bachelor's, master's, and doctoral levels;

- increasing the number and improving the quality of English-language programs for foreign students;

- enhancing the university's position in leading international university rankings;

- expanding the geography of international relations and increasing the number of partners;

- developing the university's information system to support international relations, including programs for connecting to international scientific and educational networks.

**CONCEPT OF HUMAN RESOURCE MANAGEMENT**

An essential condition for the successful development of the university is the improvement of the quality of the faculty, creating conditions for its continuous growth.

This **goal** is achieved through:

* developing a system of requirements and criteria for the formation of the university faculty;
* developing a system of moral and material incentives for academic staff;
* increasing the efficiency of postgraduate and doctoral programs;
* establishing a reserve of personnel;
* attracting the best teachers and researchers from Ukraine and around the world to engage in scientific and pedagogical activities at the university;
* implementing the concept of "talented student-student-researcher".

**CONCEPT OF ACTIVITIES IN THE FINANCIAL-ECONOMIC SPHERE**

The University independently carries out operational, accounting, financial, and managerial accounting of its work, maintains statistical reporting, and provides information upon request of the authorities empowered by Ukrainian legislation to control the respective areas of activity.

The **goal** of financial-economic activity is to ensure a stable financial-economic state based on diversification of the financial base, expanding revenue from paid educational, scientific, and other services, as well as rational and economical use of financial resources.

**Directions** for achieving financial stability and resource mobilization for development:

- systematic formation of a Perspective Plan for financial resource needs to support the university's strategic development goals;

- establishing an effective collaboration system with Ukrainian and international businesses to attract additional funds for university development;

 - developing a strategy for exploring alternative sources of funding for scientific, educational, and infrastructure projects at the university;

- ensuring increased revenue from the growth of contract-based scientific research, grants, and projects;

- improving pricing mechanisms for educational and other services based on systematic marketing research;

- increasing revenue from commercial orders, joint projects, rentals, publishing activities, and sports facilities utilization;

- expanding financial autonomy of faculties, departments/units within the university, including attracting and utilizing funds for financing their own projects;

- establishing a system for medium-term financial-economic forecasting for specific areas of activity;

- creating financial reserves and funds to resourcefully support prospective areas of activity.

**CONCEPT OF MANAGEMENT ACTIVITIES**

The **goal** of management activities is to implement effective mechanisms for project and affairs management at the university.

**Directions** of management activities:

**-** development of an internal management system for administrative processes;

**-** ensuring an effective personnel management system;

**-** optimization of the university's structure as an educational, scientific, and innovative complex;

**-** involving a wide range of individuals in discussing, adopting, and implementing management decisions;

**-** improving internal communication;

**-** organizing effective interaction with the Supervisory Board, Employers' Council, and Alumni Association regarding the resolution of university development issues;

**-** ensuring academic, managerial, and financial autonomy of faculties, departments, and other structural units of the university.

**CONCEPT OF YOUTH POLICY AND SUPPORT FOR STUDENT SELF-GOVERNMENT BODIES**

The youth policy includes various forms and methods, including national-patriotic, cultural, and labor education, promotion of a healthy lifestyle, and support for the development of student self-government.

The **goal** of the youth policy is to shape a harmoniously developed individual who upholds universal values and principles.

**Directions** of the youth policy:

* supporting the development and activities of student self-government bodies and the Council of Young Scientists at the university;
* providing necessary resources and financial support to student self-government bodies;
* involving students and postgraduates in addressing tasks related to the functioning and development of the university;
* organizing events aimed at creating a national-patriotic, aesthetic, and moral-psychological climate of interaction among students, faculty, and university staff;
* creating favorable conditions for physical education and sports activities for students, faculty, and university staff;
* promoting the integration of Ukrainian national traditions, customs, rituals, Christian morality, and respect for the history, culture, and language of one's own nation and country into the student environment;
* placing informational materials in university buildings and dormitories;
* informing students through university electronic resources and social networks;
* organizing events related to the celebration of state and national holidays, commemorating the anniversaries of scientists, cultural and educational figures, prominent politicians, and outstanding personalities of our region;
* organizing poetry and music evenings, presentations of art exhibitions, and creative activities by university staff and students;
* organizing various forms of leisure activities for students residing in dormitories;
* developing and implementing programs for collective youth leisure to create psychological comfort within the university;
* developing a program and organizing meetings of students, faculty, and university staff with interesting individuals (actors, artists, businessmen, producers, athletes, political leaders, etc.);
* organizing and conducting events to strengthen discipline, order, improve living conditions, and preserve material values in student dormitories.