

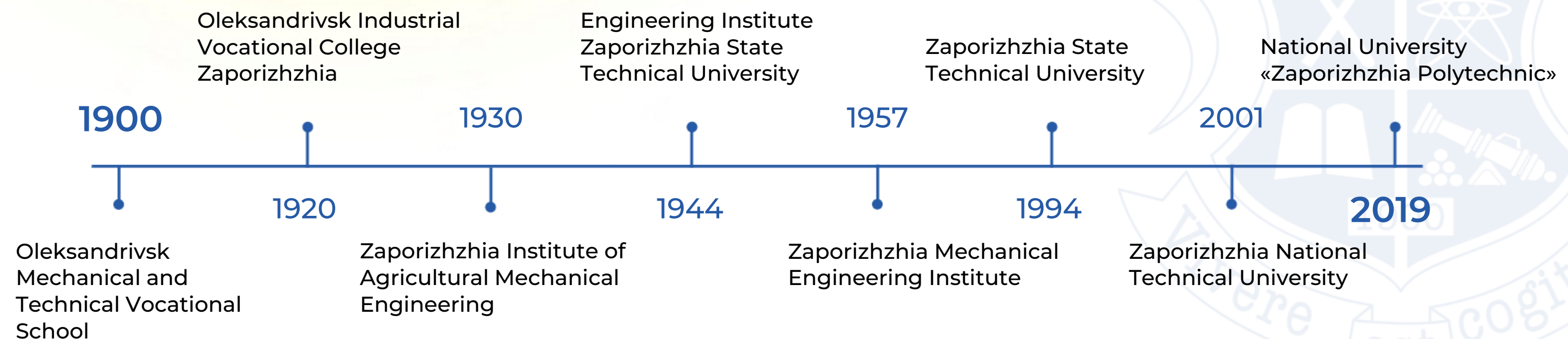
# National University «Zaporizhzhia Polytechnic»



**ЗАПОРІЗЬКА ПОЛІТЕХНІКА**  
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ

# History of the University

- A leading state higher education institution in the South-East of Ukraine
- The history of the educational institution dates back to 1900 when a 7-year vocational technical school was established. It trained technicians and mechanics for industrial enterprises



# Structure of the University

The educational process at NU «Zaporizhzhia Polytechnic» is carried out according to 160 educational programs, which are provided by 60 departments, organized into 13 faculties:

- Faculty of Mechanical Engineering
- Electrical Engineering Faculty
- Faculty of Engineering and Physics
- Computer Sciences and Technologies Faculty
- Transportation and Logistics Faculty
- Faculty of Information Security and Electronic Communications
- Faculty of Construction, Architecture, and Design
- Law Faculty
- Faculty of Economics and Management
- Faculty of Humanities
- Faculty of Physical Training and Sports Management
- Faculty of International Tourism and Economics
- Faculty of Social Sciences



# Achievements

- Thanks to the initiative of Zaporizhzhia Polytechnic, Zaporizhzhia Chamber of Commerce and Industry, Association of Industrial Automation of Ukraine, and a number of enterprises in Zaporizhzhia, EAM cluster (Engineering-Automation-Mechanical Engineering) has been created
- Our university has become a fully-fledged individual member of the European University Association
- Zaporizhzhia Polytechnic has become a fully-fledged member of the European Association for Higher Education
- We are in the Top-50 best universities in Ukraine in the U-Multirank-2022 World University Rankings
- We hold the 32nd position among the higher education institutions in Ukraine (the only institution in Zaporizhzhia region) in Scimago Institutions Rankings



# Faculty of Mechanical Engineering

Training of specialists is carried out in the following specialties:

- 133 «Industrial mechanical engineering» (curricula: «Metal cutting machines and systems», «Lifting and transport, road, construction, land reclamation machinery and equipment»)

Development of control programmes for the latest CNC machines, in particular, based on 3D modelling of objects, design and maintenance of modern multipurpose and multifunctional machines, technological equipment and tools, development of technological processes and production process control.

Design of metal structures for various purposes; training of managers in the production, supply and maintenance of special equipment for manufacturing and construction companies; training of project managers in various areas, design of technical systems, machinery, equipment and technologies for engineering production.

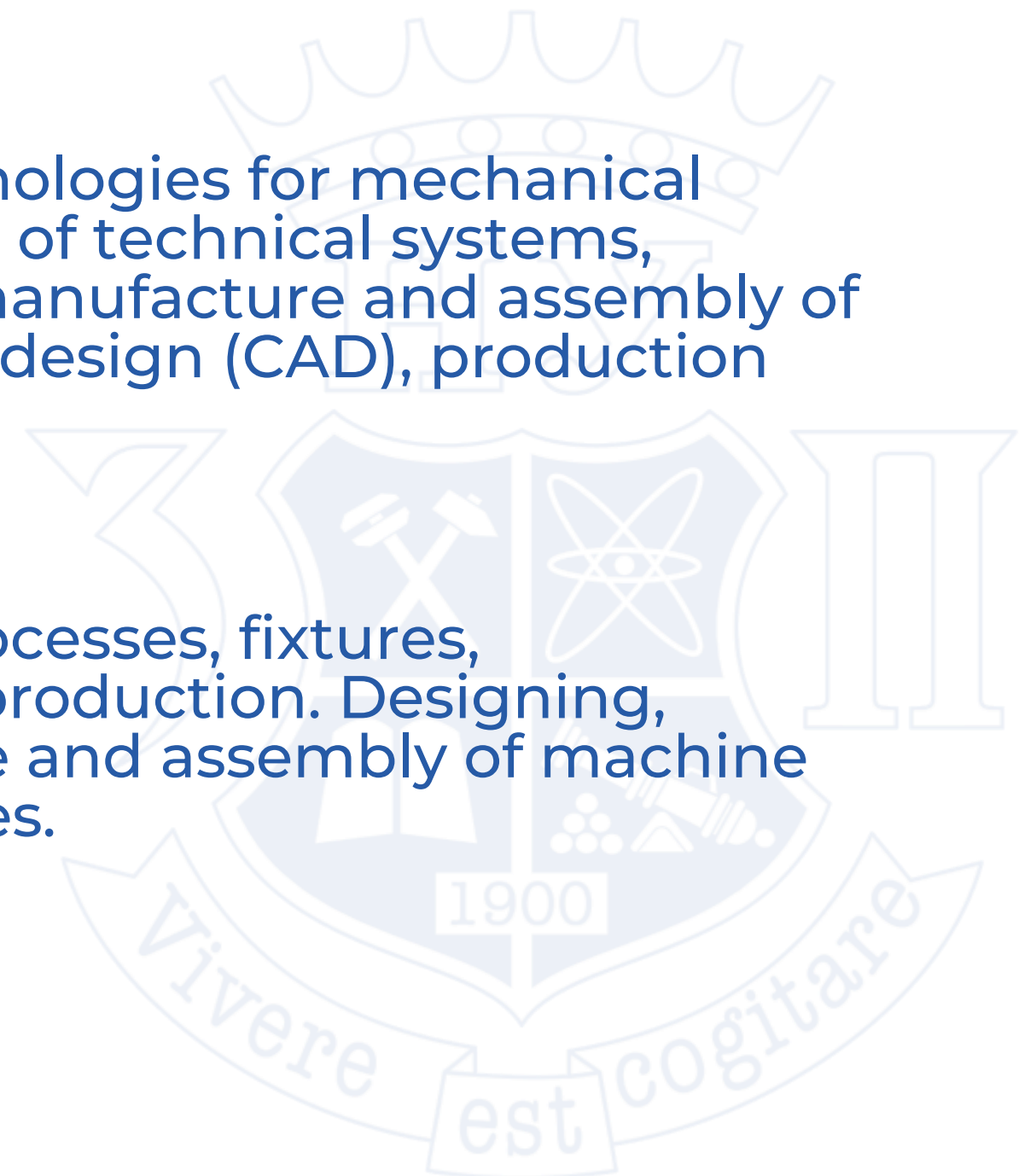


# Faculty of Mechanical Engineering

- 131 «Applied mechanics»  
(curricula: «Equipment and technologies for plastic forming of mechanical engineering structures», «Mechanical engineering technologies»)

Designing technical systems, machines, equipment and technologies for mechanical engineering production, predicting the operational properties of technical systems, designing, researching and developing technologies for the manufacture and assembly of machine and structural elements. The use of computer-aided design (CAD), production preparation (CAM) and engineering research (CAE) systems.

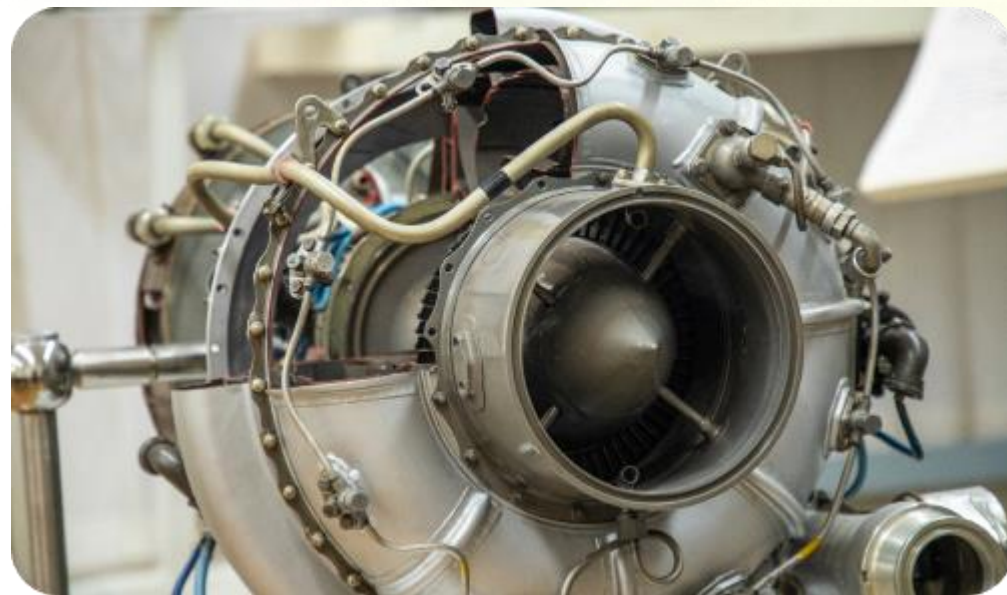
Production process management. Design of technological processes, fixtures, technological equipment, mechanisation and automation of production. Designing, researching and developing technologies for the manufacture and assembly of machine elements and structures. Application of computer technologies.



# Faculty of Mechanical Engineering

- 134 «Aviation and rocket and space technology» (curricula: «Aircraft engines and power plants», «Production technologies of aircraft engines and power plants»)

Design, research and development of technologies for the manufacture and assembly of aircraft engines and power plants; design of technologies for the operation and repair of aircraft engines and power plants; calculation and design of aircraft engines and power plants; use of computer-aided design, production preparation and engineering research systems.



# Electrical Engineering Faculty

Training of specialists is carried out in the following specialties:

- 141 «Electric power engineering, electrical engineering and electromechanics» (curricula: «Electrotechnical power supply systems», «Energy management», «Electromechanical automation systems and electric drive», «Electrical Machines and Apparatuses», «Renewable energy engineering», «Electrical engineering software», «Electrical and electronic apparatus», «Equipment and information technologies of energy-intensive industries»)

The content of training involves the acquisition of knowledge and skills aimed at studying the full cycle of generation, transformation, transmission and consumption of electrical energy. In this context, the design and manufacture of electrical products, the construction of smart networks and control systems, diagnostics and operation are considered.





# Electrical Engineering Faculty

- 144 «Thermal power engineering» (curriculum «Industrial and municipal thermal power engineering»)

The content of training involves the acquisition of knowledge and skills aimed at the design, manufacture and operation of thermal power engineering and power engineering objects both in the municipal economy and at industrial enterprises.

- 171 «Electronics» (curriculum «Devices of power electronics systems and converter technology»)

The content of training involves the acquisition of knowledge and skills aimed at designing power electronics devices within the framework of the energy component of the use of electrical energy.



# Electrical Engineering Faculty

- 173 «Avionics» (curriculum «Electrotechnical complexes and systems of aircraft»)

The content of training involves the acquisition of knowledge and skills aimed at the construction of new and modernization of existing aircraft of all classes, from small unmanned aircraft to modern helicopters from the point of view of building control systems both as a whole and for individual nodes, powering nodes, etc.

- 174 «Automation, computer-integrated technologies and robotics» (curriculum «Industrial automation»)

The knowledge gained by students allows them: to develop automation and control systems using SCADA-systems and programmable logic controllers and carry out their operation; to develop electromechanical and electrotechnical devices with the use of microcontrollers; to develop software of various levels from system to application. The practical significance lies in the automation of technological processes in the field of industrial production.

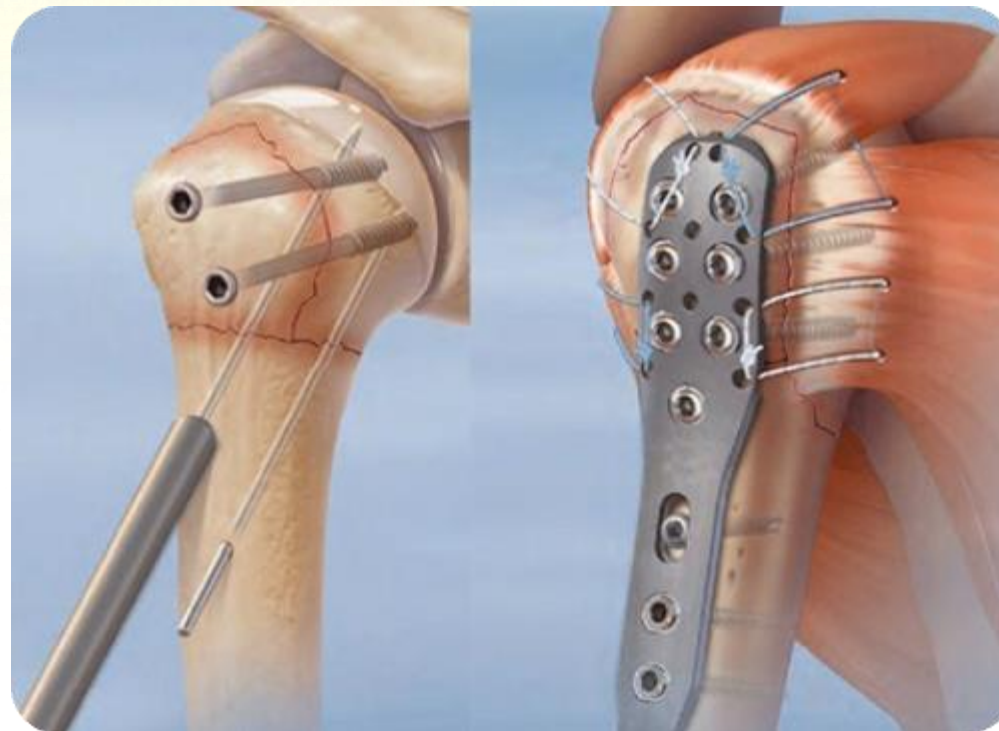


# Faculty of Engineering and Physics

Training of specialists is carried out in the following specialties:

- 131 «Applied Mechanics» (curricula: «Foundry equipment and technologies», «Welding technologies and equipment», «Restoration and improvement of wear resistance of parts and structures»)

Development of the technological process of casting ferrous and non-ferrous alloys: from wedding rings to aircraft blades. Calculation, selection, diagnostics and maintenance of foundry equipment. Application of new casting technologies, CAD/CAM/CAE systems



# Faculty of Engineering and Physics

- 132 «Applied materials science» (curricula: «Applied materials science», «Heat treatment of metals»)

Improvement of existing materials, their functioning in new areas, creation of the latest materials that enable the development of new technologies. Development of nanomaterials and technologies that help to minimise the use of the planet's resources

- 136 «Metallurgy» (curricula: «Foundry of ferrous and non-ferrous metals and alloys»)

Development of technology for manufacturing castings of ferrous and non-ferrous alloys: from internal combustion engines to aircraft blades. Production of art and jewellery, application of decorative and protective coatings.

Application of new casting technologies, CAD/CAM/CAE systems.



# Computer Sciences and Technologies Faculty

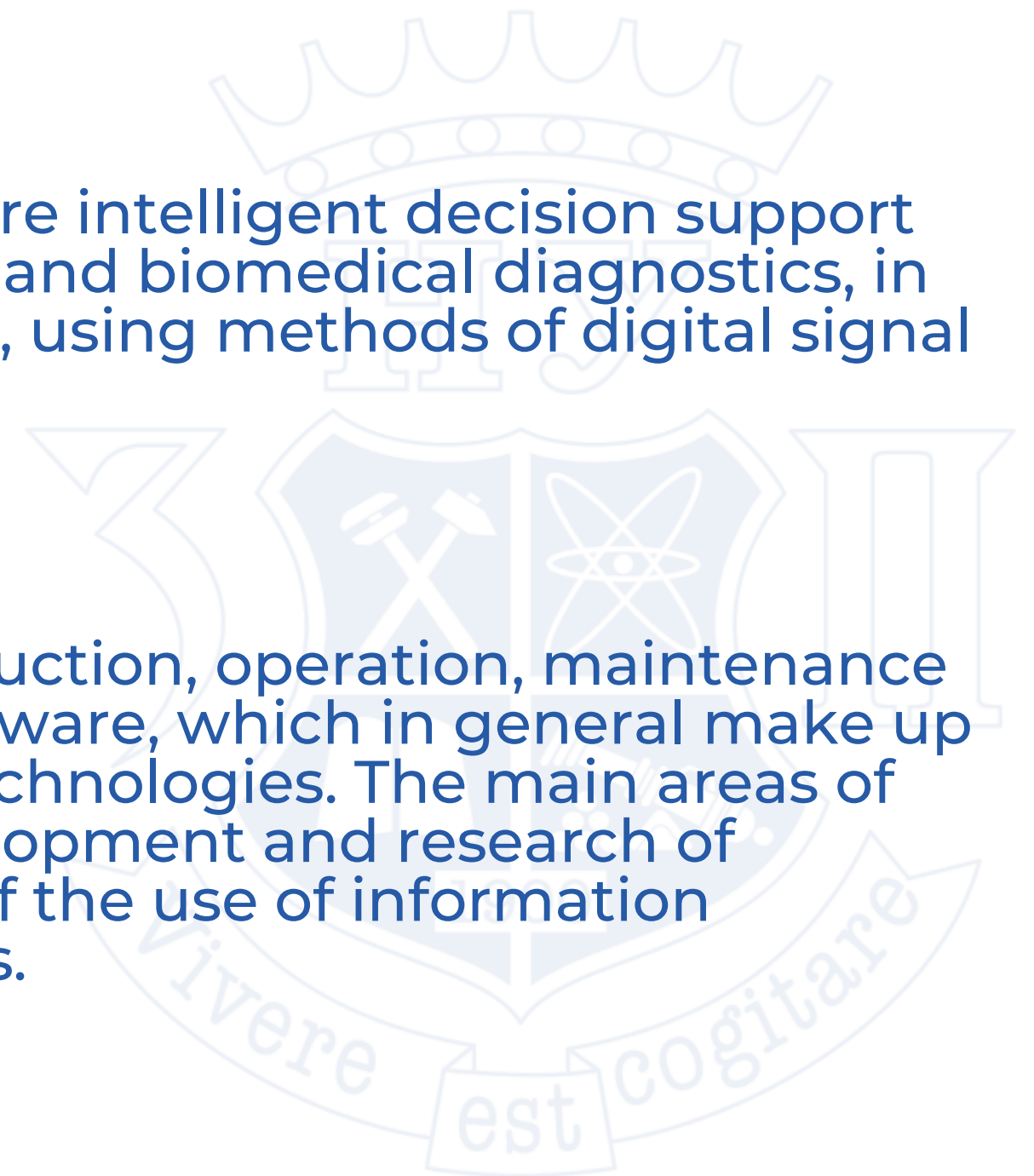
Training of specialists is carried out in the following specialties:

- 121 «Software Engineering»
- 122 «Computer Science»

The main areas of scientific activity of the department's staff are intelligent decision support systems and mathematical modeling in the tasks of technical and biomedical diagnostics, in particular, based on artificial neural and neuro-fuzzy networks, using methods of digital signal processing and images, optimization methods.

- 123 «Computer engineering»

Specialty covers knowledge of development and design, production, operation, maintenance and repair of computer hardware, software and software hardware, which in general make up the instrumental support of modern computer information technologies. The main areas of scientific activity of the department's employees are the development and research of computer models and methods for increasing the efficiency of the use of information technologies in scientific, industrial and educational processes.



# Computer Sciences and Technologies Faculty

- 124 «System analysis»

System analysis is a field of activity associated with the development and application of methods for researching and designing complex objects and systems. Systems analysts play the role of a task setter, ensuring the satisfaction of enterprise requirements through the development, implementation, or improvement of IT systems. They can not only be project managers but also possess software development skills in various application areas, capable of conducting information analysis using modern technologies such as Big Data, Business Intelligence, Data Science, artificial intelligence, and so on.



# Transportation and Logistics Faculty

**Training of specialists is carried out in the following specialties:**

- 133 «Industrial machinery engineering» (curricula: «Operating, testing and service of automotive and caterpillar vehicles», «Internal-combusting engines»)

The content of the training involves the acquisition of knowledge and skills aimed at the construction, operation, technical and service maintenance, utilization of automotive vehicles and internal combustion engines of various purposes.

- 275.02 «Transportation technologies (railway transport)» (curriculum «Organization of transportation and logistics management of railway transport»)
- 275.03 «Transportation technologies (automotive transport)» (curriculum «Organization of transportation and logistics management of automotive transport»)

The content of the training involves the acquisition of knowledge and skills aimed at the design, effective development and management of the transport technologies and systems operations for freight and passenger transportation in rail and road transport.



# Faculty of Information Security and Electronic Communications

Training of specialists is carried out in the following specialties:

- 125 «Cybersecurity and information protection» (curricula: «Information security systems and automation of information processing», «Information and communications systems security»)

As a result of training students are able to solve complex problems of information protection; to apply methods and means of cryptographic, steganographic and technical protection of information at objects of information activity; to analyze, identify and evaluate possible threats, vulnerabilities and destabilizing factors to the information space and information resources; to use information and communication technologies, modern methods and models of information and cyber security

- 172 «Electronic communications and radio engineering» (curricula: «Radio engineering», «Information communication networks», «Engineering and programming in radio electronics», «Radio electronic devices and means», «Intelligent technologies of microsystem radio electronic equipment»)

As part of the specialty, students study a set of technologies, means, methods and methods of coding, modulation and information exchange at a distance to ensure the control and management of machines, mechanisms and technological processes, communication, creation and exchange of multimedia content, support of electronic document flow and telemedicine applications.



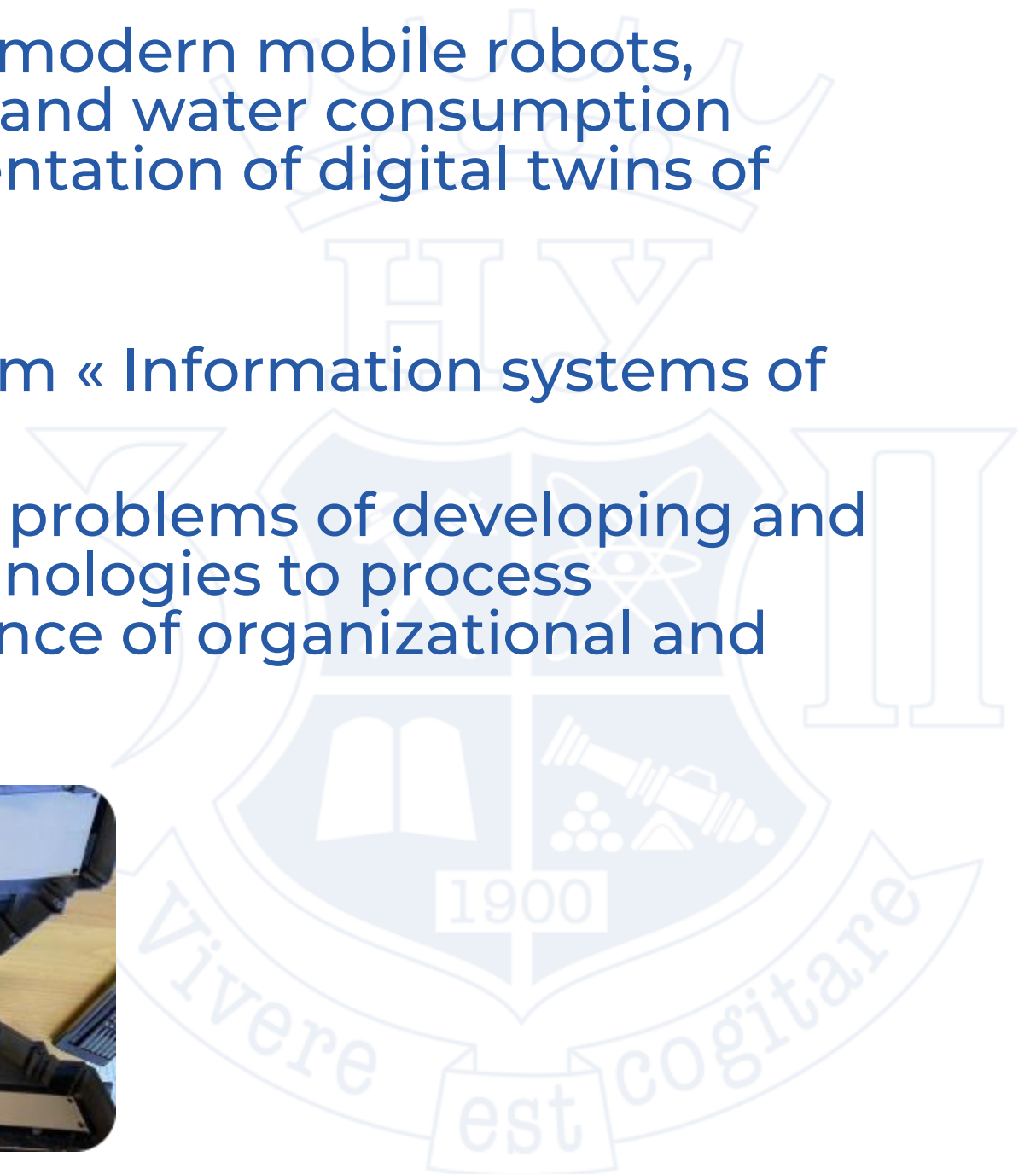
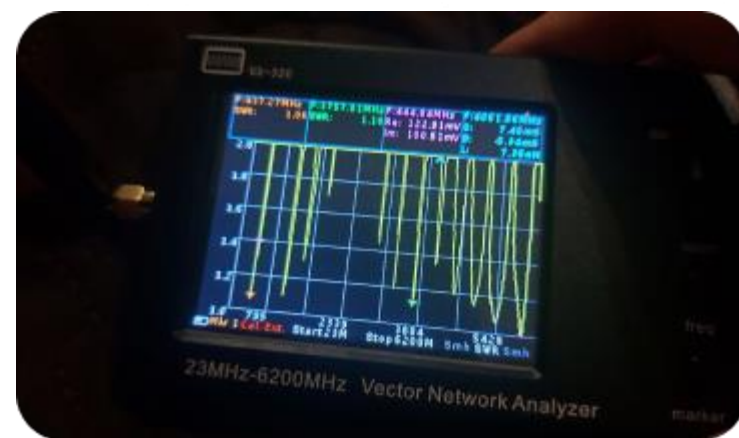
# Faculty of Information Security and Electronic Communications

- 174 «Automation, computer-integrated technologies and robotics» (curriculum «Automation, Mechatronics and Robotics»)

The emphasis is on the creation of hardware and software for modern mobile robots, industrial robots and UAVs, the development of smart energy and water consumption systems, the design of smart manufacturing and the implementation of digital twins of robots and devices.

- 175 «Information and measurement technologies» (curriculum « Information systems of monitoring and control »)

Training of specialists capable of comprehensively solving the problems of developing and using monitoring and control systems, using information technologies to process measurement results and automate activities in the performance of organizational and technical work.



# Faculty of Information Security and Electronic Communications

- 176 «Micro- and nanosystem technology» (curriculum: «Micro- and nanoelectronic devices and devices»)

Features of the specialty include the training of specialists capable to develop new and use existing micro- and nanotechnologies; to design, manufacture, test, operate and modernize optoelectronic devices, devices and products of micro- and nanosystem technology; to develop fundamental bases for the creation of small-sized structures and nanocomposites with predetermined electronic and optical properties for the needs of unconventional energy, nanomedicine, environmental control, improvement of optical technologies for ultra-dense information recording



# Faculty of Construction, Architecture, and Design

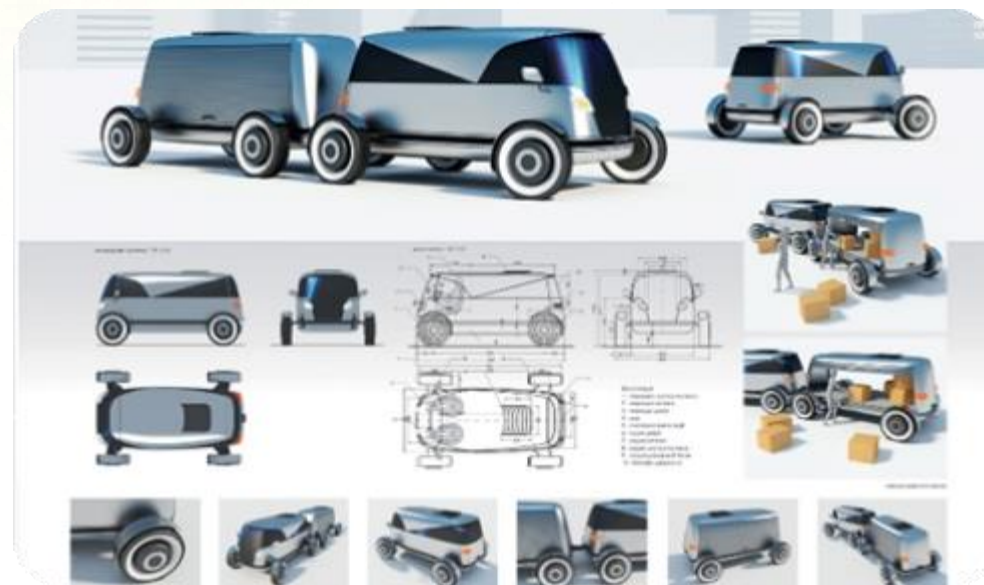
Training of specialists is carried out in the following specialties:

- 022 «Design» (curricula: «Design (Graphic design)»)

Formation of competences for carrying out activities in the field of design. The emphasis is on the ability to develop creative artistic and design solutions, on the development of effective skills of an integrated approach to solving problems in the professional field.

- 191 «Architecture and urban planning» (curricula: «Architecture and urban planning»)

Focus on the formation of basic knowledge and competencies in the field of architecture and urban planning, on the acquisition of skills in the field of integrated design, construction, and territory planning. The bachelor's degree in architecture forms the basis of design thinking, in which competencies are integrated into expert and creative ability.



# Faculty of Construction, Architecture, and Design

- 192 «Civil and structural engineering» (curricula: «Industrial and civil engineering»)

Development of the technological process of casting ferrous and non-ferrous alloys: from wedding rings to aircraft blades. Calculation, selection, diagnostics and maintenance of foundry equipment. Application of new casting technologies, CAD/CAM/CAE systems.

- 132 «Materials science» (curricula: «Composite and powder materials, coatings»)

Training of specialists for engineering and production activities in various industries and the national economy focusing on modern methods of material analysis; mathematical, physical modelling and prediction of the structure, physical, mechanical, functional and technological properties of powder, composite materials and coatings.



# Law Faculty

## Training of specialists is carried out in the following specialties:

- 052 «Political Sciences» (curricula: «Political Sciences»)

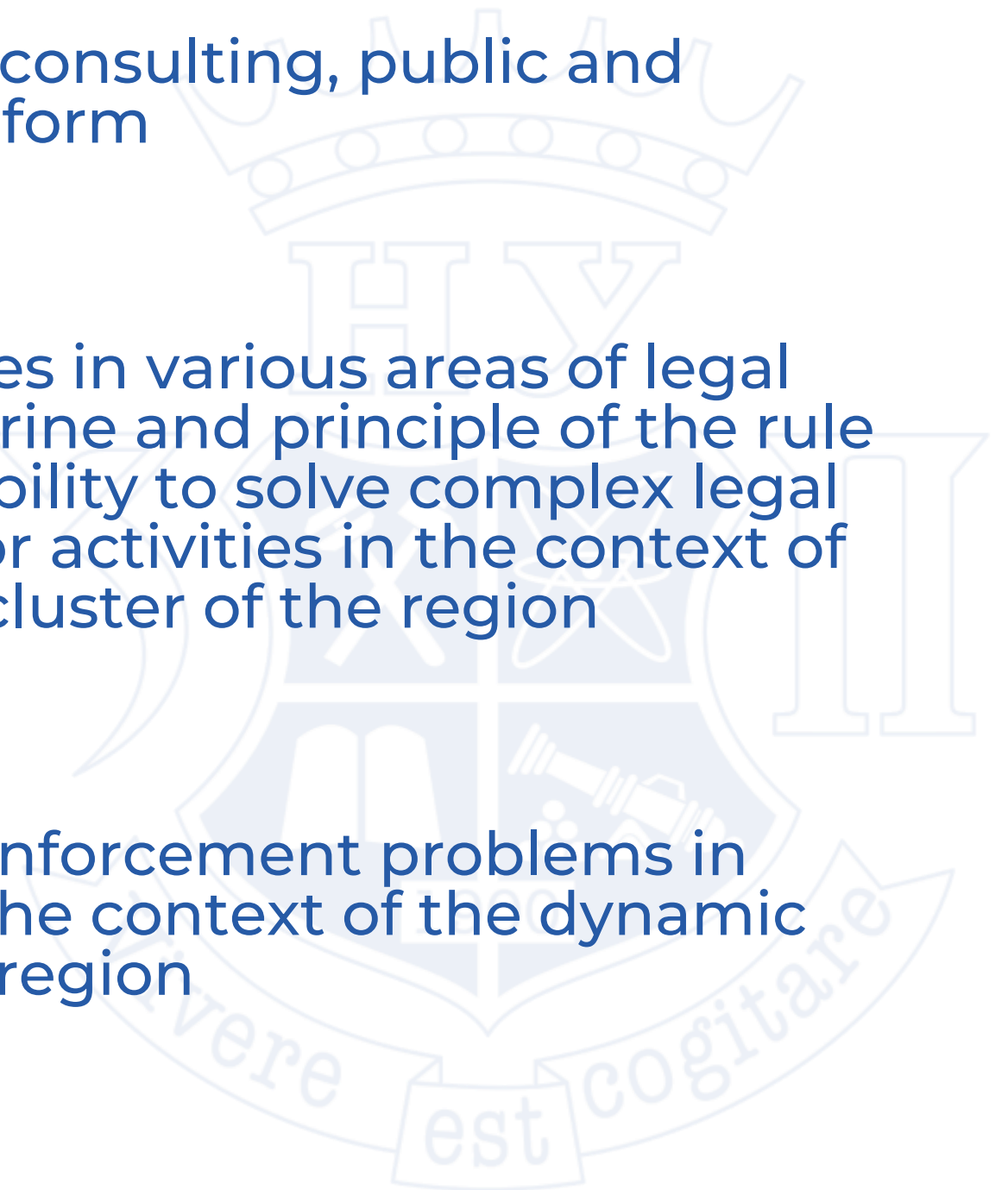
Training of high-level specialists for expert-analytical, research, consulting, public and socio-political activities in the context of the decentralization reform

- 081 «Law» (curricula: «Law»)

Developing the ability to carry out applied and practical activities in various areas of legal activity, the ability to understand and implement the idea, doctrine and principle of the rule of law in people`s legal consciousness practical skills and the ability to solve complex legal problems in uncertain conditions in a short time, preparation for activities in the context of the dynamic development of the political, economic and legal cluster of the region

- 262 «Law enforcement» (curricula: «Law enforcement»)

Developing practical skills and abilities to solve complex legal enforcement problems in uncertain conditions in a short time, preparing for activities in the context of the dynamic development of the political, economic and legal cluster of the region



# Faculty of Economics and Management

## Training of specialists is carried out in the following specialties:

- 281 «Public management and administration» (curricula: «Regional Management»)

Studies the functioning principles and regularities of the system of public administration and management as a set of institutions for public administration, local self-government, civil society in accordance with their functions and authority; as well as relations, phenomena, processes, models and mechanisms that characterize the manifestations of public administration and management at the highest, central, regional and local levels

- 071 «Accounting and taxation» (curricula: «Accounting and Taxation»)

The program focuses on the ability to solve complex specialized tasks and applied problems in accounting, analysis, control, audit, taxation of business entities and public sector institutions under uncertain conditions and requirements

- 072 «Finance, banking and insurance» (curricula: «Finance and Credit»)

The program is aimed at developing competencies and training high-level specialists in the following fields: enterprise economics; enterprise finance; investment and investment lending; financial market; tax system; information systems and technologies in financial and credit institutions; insurance services; banking operations; organization and functioning of a commercial bank; financial and monetary and credit systems of foreign countries; financial and economic security; cybersecurity at enterprises

# Faculty of Economics and Management

- 073 «Management» (curricula: «Management of Organisations and Administration»)

The program is aimed at developing basic skills in the effective and socially oriented use of management methods in the activities of enterprises and organizations of various forms of ownership. The program is designed to meet the needs and demands of regional enterprises, organizations and authorities (potential employers), takes into account the need to design a human-centered approach in the government-business-hromada (community) system, which ensures the dynamics of courses development and takes into account the applied and innovative aspects of the graduate's professional activities

- 075 «Marketing» (curricula: «Marketing»)

Develop the skills to build an effective marketing activity that aligns with your business goals.

Learn how companies use data, analytics, and activation tactics to target customers and learn how to attract them creatively to your own organization.

Develop a marketing approach that develops groupthink and unites departments around a common shared vision.

Understand how to evaluate and control vendors from influencers to agency partners.

Expand your definition of return on investment to better understand relevant indicators and a measurement system that can provide meaningful results

# Faculty of Humanities

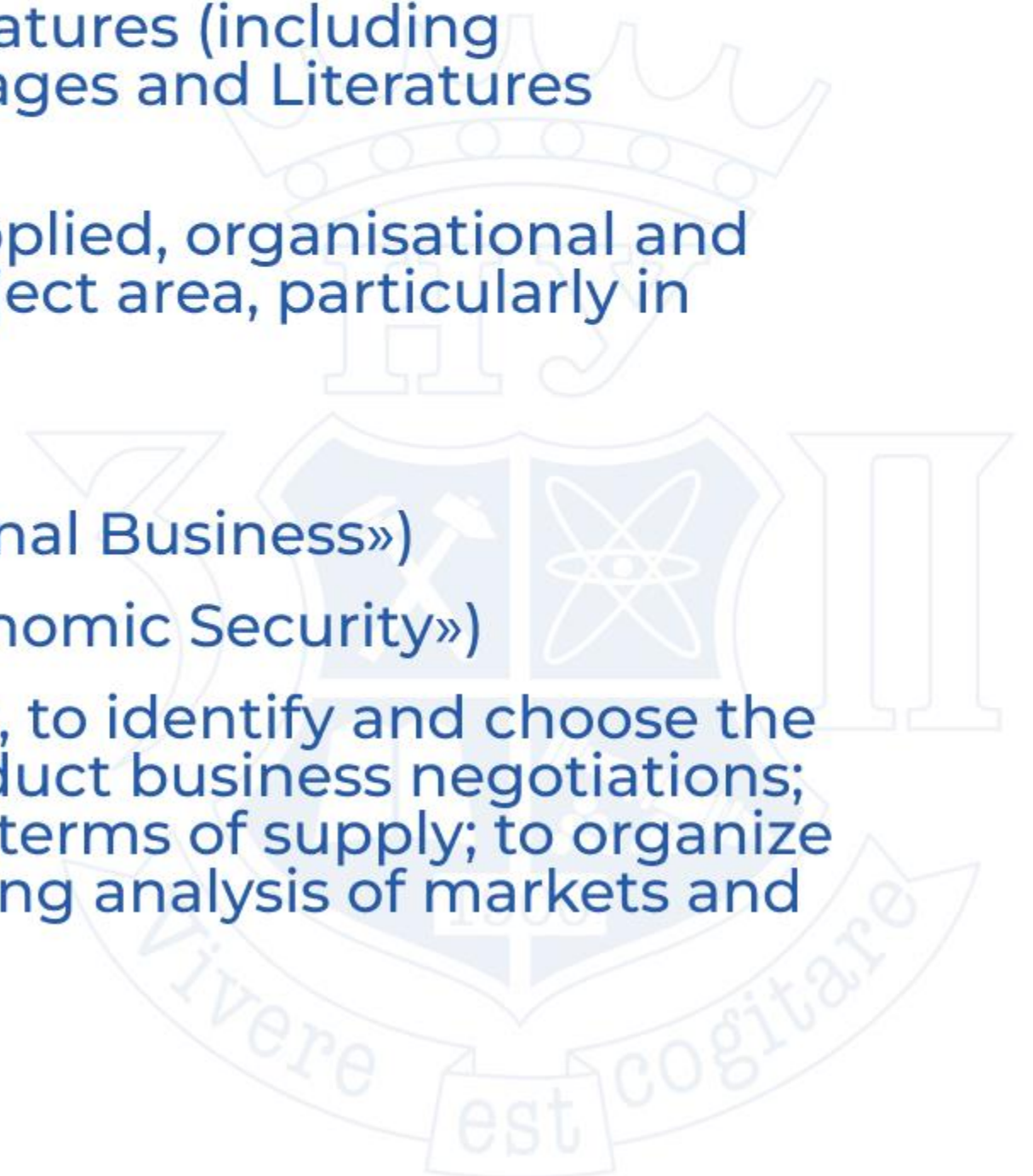
**Training of specialists is carried out in the following specialties:**

- 035 «Philology» (curriculum: «Germanic Languages and Literatures (including translation), primary language is English», «Germanic Languages and Literatures (including juridical translation)»)

Training specialists for analytical, research, professional and applied, organisational and managerial activities in Humanities and Philology as their subject area, particularly in Translation Studies

- 292 «International economic relations» (curricula: «International Business»)
- 051 «Economy» (curricula: «International Economics and Economic Security»)

To make decisions on the international activities of companies, to identify and choose the best strategies for interacting with business partners and conduct business negotiations; to conclude foreign economic contracts and choose favorable terms of supply; to organize export and import activities of enterprises; to conduct marketing analysis of markets and industries.





# Faculty of Physical Education and Sports Management

## Training of specialists is carried out in the following specialties:

- 016 «Special education» (curricula: «Remedial Education»)

Training of specialists for pedagogical, innovative and scientific activities focused on the application of modern and promising scientific and practical research in special and inclusive education, designing innovative speech therapy programs.

Graduates have mastered modern educational technologies and skills necessary to solve specialized tasks of remedial and developmental work with people who have severe speech disorders. and They are also able to conduct scientific and innovative professional activities

- 017 «Physical culture and sports» (curricula: «Physical Education»)

Special education in the field of physical education and sports; study of scientific, theoretical and methodological principles, conceptual provisions, foundations, mechanisms for organizing sports and physical education practices

- 227 «Physical Rehabilitation» (curricula: «Physical therapy, occupational therapy»)

Physical therapy in the field of health care; study of scientific, theoretical and methodological principles, conceptual provisions foundations of physical therapy.

The educational program is implemented through a combination of practical, theoretical and integrated training. It provides for compulsory clinical practice in different areas and courses of professional training that include clinical training

# Faculty of International Tourism and Economics

**Training of specialists is carried out in the following specialties:**

- 051 «Economy» (curriculum: «Personnel Management and Labour Economics», «Customs Affairs», «Digital Economy and E-commerce»)

Graduates can hold the following positions: employment and labor contract agent; head of the HR department; analytical economist; labor economist; expert in the regulation of social and labor relations; social responsibility expert; labor standardization engineer; labor organization engineer; personnel training engineer; vocational adaptation engineer; professional qualification assessor; personnel development professional.

Graduates can hold the following positions: customs clearance agent; customs broker; analytical economist; head of customs office; head of customs checkpoint; chief inspector, chief state inspector, deputy head of department, head of department, head of department of the State Customs Service.

Specialist in finance and trade; commercial services agent and trade broker



# Faculty of International Tourism and Economics

- 241 «Hotel and Restaurant BusinessManagement» (curricula: «Hotel and Restaurant BusinessManagement» )

Graduates can hold the following positions: hotel service specialist, restaurant service specialist, specialized service specialist, tourist service specialist, organizer of tourist and hotel activities; head/manager of a restaurant, hotel and other accommodation and catering facilities

- 242 «Tourism» (curricula: «Tourism Studies»)

Graduates can hold the following positions: travel (excursion) organizer; tour guide; specialist in tourist services; organizer of tourist and hotel activities; specialist in rural tourism development; director of a tourist enterprise, travel agency and travel bureau manager, tourism expert



# Faculty of Social Sciences

**Training of specialists is carried out in the following specialties:**

- 061 «Journalism» (curricula: «Journalism»)

Professional education in the field of journalism with a focus on training a specialist who understands the nature and patterns of social communications, functional features and methodology of creating media products and is able to effectively use their knowledge and skills to meet the public's needs for information of various types.

- 053 «Psychology» (curricula: «Psychology»)

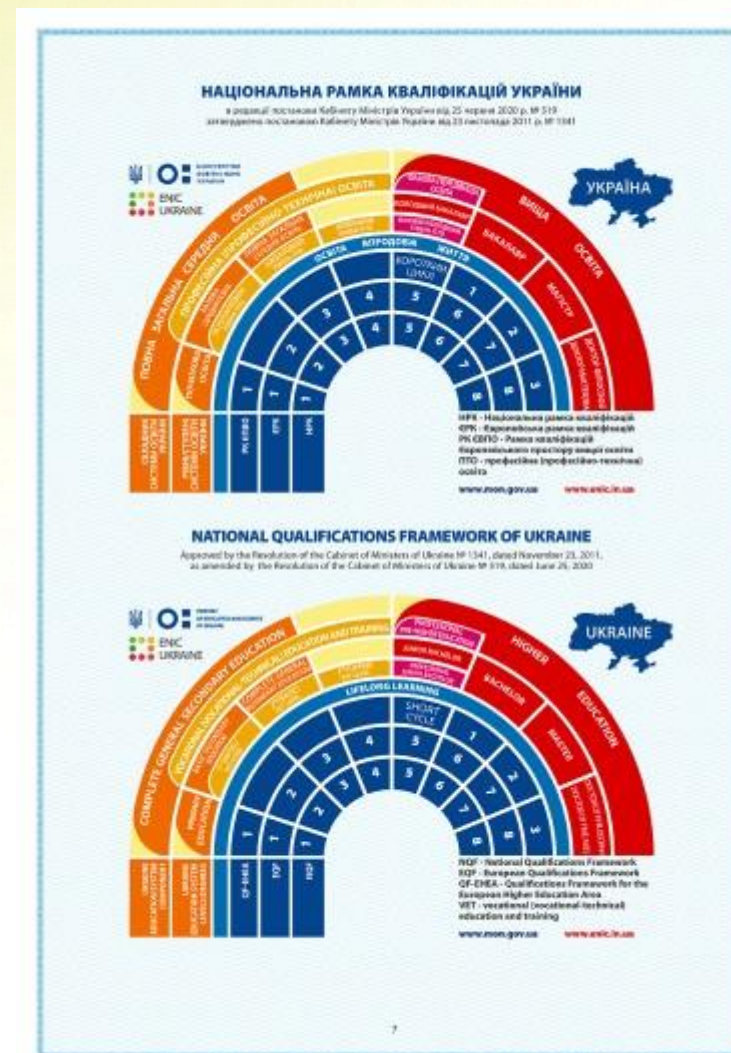
Training of specialists capable of solving complex theoretical and practical problems in professional activity in various fields of modern psychology, particularly related to the active implementation of information and communication technologies and the provision of crisis psychological support using innovative technologies in modern conditions

- 231 «Social Work» (curricula: «Social Work»)

The emphasis is on training highly qualified specialists with innovative thinking, systematized knowledge and competencies in social work, which are necessary for their productive work in social institutions in the context of implementing social development and social welfare programs while transforming the social structure of Ukraine into according to the European socially oriented type

# Diplomas of NU «Zaporizhzhia Polytechnic»

- Diplomas of NU «Zaporizhzhia Polytechnic» are recognized in Europe
- It is possible to enter the 2nd or 3rd course of study on the basis of a junior specialist/bachelor's diploma



# Contacts

We invite you to study at NU «Zaporizhzhia Polytechnic»



Our website



International Students at  
National University  
«Zaporizhzhia  
Polytechnic»



**ЗАПОРІЗЬКА ПОЛІТЕХНІКА**  
НАЦІОНАЛЬНИЙ УНІВЕРСИТЕТ

