

**EDUCATIONAL PROGRAM**  
**6B02124 – Polygraphy**

<b>University mission:</b>	<b>Based on the most advanced methods and programs, we train educators of the 21st century. Our graduates are professionals who are ready to anticipate the rapidly changing needs of modern students. Our corporate culture and infrastructure is conducive to unlocking the full potential of students</b>
<b>Learning outcomes (LO)</b>	<b>After completing the program, the graduate:</b> <b>LO1-</b> classifies modern processes of a historical and political nature, introducing in art education the priorities of the policy of forming a new historical consciousness of Kazakhstan; <b>LO2 -</b> adapts philosophical, sociological, political science, cultural and psychological aspects of modern science, as well as techniques for effective intercultural communication, using the potential of culture and art; <b>LO3 –</b> uses practical knowledge to effectively organize the work of leaders in the youth environment, including creative associations and unions; <b>LO4 –</b> presents and argues his own opinion on the problems and prospects of the development of art education in the state, Russian and foreign languages; <b>LO5 –</b> simulates the educational process based on technological advances using the latest hardware and software and the capabilities of a variety of information resources <b>LO6 –</b> uses material on the basics of economics and business, entrepreneurship and leadership, life safety and a healthy lifestyle, ecology and sustainable development, legal and anti-corruption culture in order to improve vocational education; <b>LO7–</b> analyzes and systematizes professional information, plans a development strategy for the printing company, taking into account new scientific knowledge and innovative technologies; <b>LO8 –</b> applies its knowledge in the production processes of printing production, selects the appropriate printing materials and technological schemes for the production of printed materials, performs organizational and technological calculations <b>LO9 -</b> applies technological operations and works on specialized printing equipment <b>LO10 –</b> manages the technological process, carries out rational loading of equipment, finds organizational and managerial solutions in non-standard technological situations; <b>LO11-</b> organizes the work of the team, is capable of interacting with colleagues and collaborating with partners, participates in corporate activities; <b>LO12 -</b> carries out teaching and methodological activities in secondary specialized educational institutions in the field of printing, publishing and related disciplines, and also conducts educational and enlightening activities in cultural institutions.

	<b>Name of disciplines and their main sections</b>	<b>ECTS</b>
<b>GED 1</b>	<b>CYCLE OF GENERAL EDUCATIONAL DISCIPLINES (GED)</b>	<b>56</b>
<b>OC 1.1</b>	<b>OBLIGATORY COMPONENT (OK)</b>	<b>51</b>
1.	<b>The modern history of Kazakhstan</b>	<b>5</b>
	The purpose of the discipline: knowledge of the main stages of national history from the beginning of the XX century to the present day. Contents: The Path to Independence. Soviet model. The policy of "perestroika". Kazakhstan development model. Kazakhstan in the modern world. ON THE. Nazarbayev is a personality in history. Developed skills: working with sources, writing, preparing and giving presentations, conducting discussions and debates.	Learning outcomes: LO1
2.	<b>Russian (Kazakh) language</b>	<b>10</b>
	<p><b>Kazakh language</b> The purpose of the discipline: the formation of communicative and linguistic competence in the state language Content: Business and everyday communication. Culture of speech, etiquette. Culture and genres of correspondence. Business writing style. Formable skills: the correct and free use of vocabulary, scientific terms, syntactic constructions in oral and written communication in everyday and business communication</p> <p><b>Russian language</b> The purpose of the discipline: the formation of communicative and linguistic competence in Russian Content: The Russian language as a means of communication and its role in shaping the socio-cultural worldview at the level of language proficiency. Formable skills: free use of vocabulary, scientific terms, syntactic constructions in oral and written communication in everyday and business communication</p>	Learning outcomes: LO2, LO4, LO12
3.	<b>Foreign language</b>	<b>10</b>
	<p><b>Foreign language</b> The purpose of the discipline: the formation of communicative and linguistic competence in a foreign language Contents: Social, social and cultural sphere of communication. Future profession. Education. News, media, culture. Formable skills: free use of vocabulary, scientific terms, syntactic constructions in oral and written communication in everyday and business communication</p>	Learning outcomes: LO2, LO12

4.	<b>Information and communications technology (in English)</b>		5
	The purpose of the discipline: mastery of information competencies Content. An ICT role in key sectors of development of society. Architecture of computer systems. Software. Operating systems. Electronic government. Information technologies in the professional sphere. Prospects of development of ICT. Formed skills: the use of information technology in professional activities	Learning outcomes: LO3, LO4, LO5	
5.	<b>Philosophy</b>		5
	The purpose of the discipline: the formation of a high level of philosophical culture and rational thinking of a future specialist Contents: The subject and method of philosophy. Fundamentals of a philosophical understanding of the world. Consciousness, soul and language. Ontology and metaphysics. Ethics. Philosophy of Values. The philosophy of freedom. The philosophy of art. Formed skills: mastery of the basic forms and methods of scientific knowledge, methods of criticism and argumentation.	Learning outcomes: LO2, LO4	
6.	<b>The module of socio-political knowledge (sociology, political science, cultural studies, psychology)</b>		8
	<b>Sociology</b>		2
	The purpose of the discipline: the formation of social thinking and methods of social cognition Contents: Sociological studies. Social structure and stratification of society. Socialization and identity. Religion, culture, society. Sociology of Ethnicity and Nation. Education and social inequality. Mass media, technology and society. Formed skills: a critical analysis of social problems, social situations and their consequences	Learning outcomes: LO4, LO6, LO12	
	<b>Political science</b>		2
	The purpose of the discipline: the formation of an active civic position and ability to focus on democratic values Contents: Politics in the system of public life. The political system of society. State and civil society. Political parties, socio-political movements. Political culture, behavior. Formed skills: using theoretical knowledge and methodological tools to assess real situations in the world and in Kazakhstan.		
	<b>Cultural studies</b>		2
	The purpose of the discipline: the formation of systematic information about the essence of the phenomenon of culture, about the main trends in the development of world and domestic culture Contents: Language and semiotics of culture. Nomad culture. The legacy of proto-Türks and Türks. The formation of the Kazakh culture. Kazakh culture in the context of global processes. Formed skills: apply cognitive approaches and methods of studying cultural forms for professional purpose		
7.	<b>Psychology</b>		2

	<p>The purpose of the discipline: mastery of the theory and practice of personality development psychology</p> <p>Contents: Emotions, emotional intelligence. Human will, psychology of self-regulation. Individually typological features. Values, interests, norms - the spiritual basis. Psychology of the meaning of life, professional self-determination, health. Communication of individuals and groups.</p> <p>Formed skills: master the basics of communication psychology, prevent and resolve interpersonal conflicts</p>		
8.	<b>Physical Training</b>		<b>8</b>
	<p>The purpose of the discipline: the formation of a culture of maintaining and promoting health</p> <p>Content: The basics of a healthy lifestyle. Natural-scientific foundations of physical education. Modern wellness systems, the basics of monitoring the physical condition of the body. The main methods of independent physical education and sports. Developed skills: own a culture of self-preservation, be active in the field of physical health</p>	Learning outcomes: LO5	
<b>SC 1.2</b>	<b>ELECTIVE COMPONENT (EC)</b>		<b>5</b>
1.	<b>Fundamentals of Economics and Business</b>		
	<p>The purpose of the discipline: familiarization with the basic principles and laws of the functioning of a market economy</p> <p>Content: The concept of business. Types of entrepreneurial activity. Theory of ownership, social forms of management. Goods, money. Social and economic system. The role of the state in business development. Macroeconomics. Kazakhstan in the system of world economic relations. Formed skills: to understand basic issues of economics and business</p>	Learning outcomes: LO5, LO6, LO12	
2.	<b>Fundamentals of law and anti-corruption culture</b>		
	<p>The purpose of the discipline: improving public and individual legal awareness and legal culture</p> <p>Content: main provisions of the Constitution of the Republic of Kazakhstan; system of government, terms of reference, goals, methods of state regulation of the economy, the role of the public sector in the economy; financial law and finance; mechanism for the interaction of substantive and procedural law</p> <p>Formed skills: own a legal and anti-corruption culture</p>	Learning outcomes: LO3, LO5, LO12	
3.	<b>Human life safety</b>		
	<p>The purpose of the discipline: the formation of knowledge in the field of life safety and labor in enterprises, organizations, institutions, etc.</p> <p>Contents: Life Safety. Hazards, emergency situations. Social dangers: in the spiritual sphere, politics, dangers in the economic sphere, in everyday life, everyday life. Formed skills: master basic methods of behavior and organization of life in emergency situations</p>	Learning outcomes: LO5, LO6	
4.	<b>Ecology and Sustainable Development</b>		

	Purpose of discipline: formation of holistic view of basic laws of sustainable development of nature and society Contents: main laws governing the functioning of living organisms, ecosystems, biosphere; interactions of components of the biosphere; modern ideas about the concepts, strategies and objectives of sustainable development Developed skills: use environmental knowledge in professional and personal activities to maintain sustainable development	Learning outcomes: LO5,LO6	
5.	<b>Leadership and youth policy</b>		<b>5</b>
	Purpose of discipline: to familiarize students with leadership issues as a phenomenon of modernity. Content: nature, functions and classifications of leadership; stages of personal advancement in leaders and leadership styles; basic methods for assessing the business and entrepreneurial qualities of youth. Developed skills: the application of practical knowledge for the effective organization of work of leaders in the youth environment	Learning outcomes: LO3,LO6, LO12	
<b>CD 2</b>	<b>CYCLE OF BASIC DISCIPLINES (BD)</b>		<b>112</b>
<b>UC 2.1</b>	<b>UNIVERSITY COMPONENT (UC)</b>		<b>56</b>
1.	<b>Art education</b>		<b>5</b>
	Purpose of discipline: formation of holistic view of main milestones of development of the artistic culture of Kazakhstan Contents: Basic knowledge about the main milestones of the formation and development of domestic art and artistic culture from antiquity to modernity. Formed skills: use the acquired knowledge in the practical activities of the artist-teacher in formal and non-formal education	Learning outcomes: LO2, LO4, LO12	
2.	<b>Kazakh (Russian) language (B2)</b>		<b>5</b>
	The purpose of the discipline: the formation of communicative competence for professional communication and record keeping Content: Definition of speech culture. The correctness of speech. Correct construction of sentences. The expressiveness of speech. Expressive syntax. Wealth, purity, logical speech. The culture of speech behavior in the professional sphere. Developed skills: competently format written texts in the Kazakh (Russian) language, using linguistic dictionaries and literature	Learning outcomes: LO2,LO4,LO12	
3.	<b>Advanced foreign language</b>		<b>5</b>
	The purpose of the discipline: the formation of communicative competence for professional communication and record keeping Contents: Detailed reports on the topic. Articles and messages on contemporary issues, contemporary fiction. Writing essays, reports, letters highlighting particularly important events and impressions Formed skills: to speak fluently and competently format written texts using linguistic dictionaries and literature	Learning outcomes: LO2,LO12	
4.	<b>The module of the basics of fine art and Polygraphy</b>		<b>21</b>
	<b>History of World Fine Art</b>		<b>3</b>

	The purpose of the discipline: familiarization with the history and foundations of the theory of West European and Russian fine art in retrospect. Historical, sociocultural and iconographic features of all periods, creative personalities in the visual arts. Formed skills: apply the acquired knowledge in professional activities in the preparation of the author's design of printed materials.	Learning outcomes: LO1,LO2,LO12	
	<b>Basics of printing production</b>		<b>6</b>
	The purpose of the discipline: familiarization with the basic knowledge of printing technologies, classic types of printing, equipment used. Contents: History and current state of printing. Description and stages of the creation of printed materials. Units used in printing. Formed skills: distinguish between classic and modern types of printing	Learning outcomes: LO3, LO5, LO7	
	<b>Academic drawing</b>		<b>4</b>
	Purpose of discipline: development of laws, rules and techniques of fine writing in image of the world, objects and people, methods of conducting multi-session and short-term drawings. Content: Laws of linear and aerial perspective. Analysis of design, realistic transfer of proportions and volume of simple form. Formed skills: to perform long drawing, sketches, sketches, transfer volume and space in drawing.	Learning outcomes: LO3, LO4	
	<b>Academic painting</b>		<b>4</b>
	Purpose of discipline: formation and development of artistic vision, spatial and spatial vision of thinking Contents: Technique of watercolor painting, their specificity, properties, composition. Technique - raw "a laprima" in short-term studies. Modeling the shape and depth of space with transparent layers of paint. Formed skills: master technical and technological techniques for creating an artwork, colorist techniques.	Learning outcomes: LO3, LO4	
	<b>Composition</b>		<b>4</b>
	Purpose: formation of a holistic system of basic knowledge about building a composition. Contents: Elements, laws, types of composition. The basics of the design of space and its construction. Formable skills: master means of harmonizing the artistic form and be able to really embody the content of the conceived work.	Learning outcomes: LO3, LO4	
	<b>ELECTIVE COMPONENT (SC)</b>		
	<b>Prepress Process Module 1</b>		
	<b>Color science</b>		<b>4</b>
	Purpose: formation of a systematic knowledge of properties of color and the laws of preparation of harmonious color combinations Content: science of color. Basic, compound and complementary colors, color characteristics, color contrasts, color mixing, coloring, color harmony, color language. Formed skills: to work with color and color compositions	Learning outcomes: LO3, LO4	
	<b>Computer graphics (CorelDraw, Photoshop)</b>		<b>5</b>

	Purpose of discipline: formation of knowledge about hardware and applied software of computer graphics. Contents: Types of computer graphics. Two-dimensional graphics. Three-dimensional graphics. Image file formats. Color models. Features of creating a computer collage. Formed skills: to create, edit and design graphic objects on a personal computer using application programs.	Learning outcomes: LO5,LO7	
	<b>Desktop publishing (InDesign)</b>		<b>5</b>
	Purpose: formation of knowledge of computer layout methods of information publications. Contents: The program interface. Development of design of pages for their output on printing machines. Import image. Exporting documents. Various formats of electronic publications.Developed skills to design printed publication using software, work in modern publishing systems	Learning outcomes: LO5,LO7	
	<b>Text processing technology</b>		<b>4</b>
	Purpose: formation of knowledge of modeling publications, preparing for print production Contents: Printing system based on a typographic and English-American paragraph, basic rules of layout of publications.Formed skills: to be able to make calculation and graphic layouts for book-magazine and newspaper products, to calculate capacity of strips.	Learning outcomes: LO5,LO7	
<b>11.</b>	<b>Practical training</b>		<b>4</b>
	The purpose of the discipline: the formation of a professional orientation on the basis of a printing company. Contents: Professional orientation, interest in the chosen specialty of the printer. Familiarization with the main production processes of printing production. Formed skills: to distinguish stages of printing production, types of printing.	Learning outcomes: LO5,LO7	
	<b>Prepress Process Module 2</b>		
	<b>Theory of color and color reproduction</b>		<b>4</b>
	Purpose: formation of systematic knowledge of properties of color and laws of preparation of harmonious color combinations Content: Additive and subtractive color synthesis. RGB, CMYK systems Basic, compound and complementary colors, color characteristics, color contrasts, color mixing. Formed skills: to be able to work with color and color compositions	Learning outcomes: LO3,LO4	
	<b>Computer tools for information processing</b>		<b>5</b>
	Purpose: formation of knowledge about hardware (technical) and applied software of computer graphics. Contents: Types of computer graphics. Image file formats. Color models. Features of creating a computer collage.Formed skills: to be able to create, edit and design graphic objects on a personal computer using application programs.	Learning outcomes: LO5,LO7	
	<b>Page planning</b>		<b>5</b>

	<p>Purpose: formation of a system of knowledge of methods of computer layout of information publications, basic hardware and application software.</p> <p>Contents: Development of design of any complexity pages for output on printing machines. Import image.</p> <p>Developed skills: to design a printed publication using software, work in modern publishing systems</p>	Learning outcomes: LO5,LO7	
	<b>Font</b>		<b>4</b>
	<p>Purpose: formation of knowledge about theoretical aspects of content and form of the font, principles of its application</p> <p>Contents: A system for constructing a composition of fonts by typing and typesetting. Basic concepts of typography. Characteristics of fonts and texts</p> <p>Formed skills: to be able to graphically execute fonts.</p>	Learning outcomes: LO8, LO9	
	<b>Training practice</b>		<b>4</b>
	<p>The purpose of the discipline: the formation of a professional orientation on the basis of a printing company.</p> <p>Contents: Professional orientation, interest in the chosen specialty of the printer. Familiarization with the main production processes of printing production. Formed skills: to be able to distinguish between stages of printing production, types of printing</p>	Learning outcomes: LO8, LO9	
	<b>Chemistry and Engineering Graphics module 1</b>		<b>14</b>
<b>4.</b>	<b>Chemistry for Polygraphy</b>		<b>3</b>
	<p>Purpose: formation of knowledge about chemical component of printing</p> <p>Content: substance structure, chemical bonding, chemical nomenclature of inorganic and organic compounds. Dispersed systems. Photochemical reactions. Chemical fundamentals of quality of printing processes.</p> <p>Formed skills: to use knowledge of chemical laws that make up chemical basis of printing production in practice.</p>	Learning outcomes: LO8, LO10	
<b>6.</b>	<b>Physico-chemical foundations of printing production</b>		<b>5</b>
	<p>The purpose of the discipline: the formation of a holistic view of the physicochemical phenomena in printing.</p> <p>Contents: physico-chemical fundamentals of prepress, printing, post-printing processes. Physico-chemical properties of printing materials.</p> <p>Formed skills: use knowledge of physical and chemical processes in the production of printed materials in practical activities.</p>	Learning outcomes: LO8, LO10	
	<b>Engineering graphics</b>		<b>6</b>
	<p>Purpose: development of engineering graphics methods and principles.</p> <p>Contents: Basics of drawing. Reading and manual execution of drawings and diagrams - product images. Fonts and inscriptions on drawings. Conditional image of materials in the drawing. X, Y, Z coordinates. Axonometry.</p> <p>Formed skills: the implementation of educational work in engineering graphics field.</p>	Learning outcomes: LO5	
	<b>Chemistry and Engineering Graphics Module 2</b>		<b>14</b>
<b>7.</b>	<b>Polymers for Polygraphy</b>		<b>3</b>



	The purpose of the discipline: the formation of knowledge in the chemistry of macromolecular compounds used in printing. Content: The structure of the substance, chemical bonding, chemical nomenclature of organic compounds. Photopolymerization reactions. Formed skills: to use knowledge of the chemistry of polymers, which form the basis of printing materials science in practice.	Learning outcomes: LO8, LO10	
	The purpose of the discipline: the formation of a holistic view of the physicochemical phenomena in printing. Contents: physico-chemical fundamentals of prepress, printing, post-printing processes. Physico-chemical properties of printing materials. Formed skills: use knowledge of physical and chemical processes in the production of printed materials in practical activities.	Learning outcomes: LO8, LO10	
	<b>Descriptive Geometry and Engineering Graphics</b>		<b>6</b>
	Purpose of discipline: development of basic methods and principles of descriptive geometry and engineering graphics. Contents: Basics of drawing. Reading and manual execution of drawings and diagrams - product images. Fonts and inscriptions on the drawings. Conditional image of materials in drawing. X, Y, Z coordinates. Axonometry. Formed skills: implementation in field of descriptive geometry and engineering graphi	Learning outcomes: LO5	
	<b>Module Printing and packaging production 1</b>		<b>20</b>
	<b>Printing and packaging materials</b>		<b>5</b>
	Purpose: formation of knowledge about properties and range of printing materials. Contents: the main classes of materials used in printing. Methods of research and testing of printing materials. Formed skills: be able to select printing materials that match the type and method of printing	Learning outcomes: LO8, LO9	
	<b>Printing Production Processes</b>		<b>5</b>
	Purpose: formation of knowledge in production and technological processes of printing production. Contents: Types of production. Types and structure of technological processes and principles of construction of technological schemes. Processes for preparing production for output. Developed skills: be able to make calculations, propose multivariance and simulate production process	Learning outcomes: LO5, LO10	
	<b>Packaging technology</b>		<b>5</b>
	The purpose of the discipline: the formation of ideas about the principles of functioning of packaging enterprises. Content: Stages of packaging development. The main methods for the production of packaging and containers. Registration of containers and packaging by means of printing. Formed skills: to be able to draw up general schemes of packaging production, workshops and sections.	Learning outcomes: LO8, LO9	
	<b>Instant printing</b>		<b>5</b>

	<p>Purpose of discipline: formation of ideas about the principles of functioning of printing houses</p> <p>Contents: Theoretical foundations of processes and technologies of operational printing. Management and marketing in operational production. Software, technologies, equipment and materials of operational printing.</p> <p>Formed skills: to be able to draw up technological schemes for production of printed products in a digital way, to</p>	<p>Learning outcomes: LO10, LO11</p>	
	<b>Module Printing and packaging production 2</b>		<b>20</b>
	<b>Printing supplies</b>		<b>5</b>
	<p>Purpose: formation of knowledge about printing and packaging materials, their properties and assortment.</p> <p>Contents: Classification of printing and packaging materials. Composition and properties of printing and packaging materials. Methods of research and testing of basic and auxiliary materials. Formed skills: to select printing materials that match type and method of printing.</p>	<p>Learning outcomes: LO8, LO9</p>	
	<b>Workflow management</b>		<b>5</b>
	<p>Purpose: formation of knowledge in workflow management systems for printing production: concept of workflow; the structure of digital technological process, integrated systems for managing continuous workflow of printing production</p> <p>Formed skills: to use technical means of digital workflow management, to make up structure of digital technological process</p>	<p>Learning outcomes: LO5, LO10</p>	
	<b>Technology for creating packaging products</b>		
	<p>Purpose: formation of knowledge about principles of functioning of packaging enterprises</p> <p>Content: Stages of packaging development. Main methods for production of packaging and containers. Registration of containers and packaging by means of printing. Developed skills: to draw up general schemes for creating packaging products and packaging production</p>	<p>Learning outcomes: LO8, LO9</p>	
	<b>Digital technology of printing</b>		<b>5</b>
	<p>The purpose of the discipline: formation of ideas about electrophotographic processes and methods of obtaining images</p> <p>Contents: electrophotographic process and methods for obtaining images. Principles of construction and operation of photocopiers, image quality management in them</p> <p>Formed skills: to draw up technological schemes for the production of printed products in a digital way</p>	<p>Learning outcomes: LO10, LO11</p>	
	<b>CYCLE OF PROFILING DISCIPLINES (PD)</b>		<b>60</b>
	<b>UNIVERSITY COMPONENT</b>		<b>31</b>
	<b>Professional-focused Disciplines Module</b>		<b>31</b>
	<b>Printing Plate Technology</b>		<b>4</b>

	The purpose of the discipline: the formation of knowledge of manufacturing technologies for printing plates of classic and special types of printing Contents: copy processes and properties of copy layers; analog and digital methods of manufacturing printing plates, plate equipment. Formed skills: to make printed forms in the analog and digital way.	Learning outcomes: LO9, LO10	
	<b>Printing machines, automatic machines, production lines</b>		<b>6</b>
	Purpose: formation of knowledge on selection, operation of printing machines, automatic machines and production lines. Contents: types, applications, mechanics of individual devices and components of printing machines, automatic machines and production lines. Formed skills: choose, operate, draw up technological scheme of printing machines, automatic machines and production lines and their main components	Learning outcomes: LO9, LO10	
	<b>Publishing Basics</b>		<b>3</b>
	Purpose: formation of knowledge about publishing process. Contents: Publishing Trends. Main quantitative parameters of publications. Signs of publishing proofreading, layouts of publications for print. Calculation of required amount of basic supplies for publications. Formed skills: to prepare layouts of publications for printing, to calculate required amount of basic supplies for publications	Learning outcomes: LO11, LO12	
			<b>4</b>
	Purpose: formation of knowledge in production of industrial products, design, labeling. Content: samples of design objects or individual elements in mock-ups and materials. A variety of techniques for presenting the results of the research and analytical part of design. Formed skills: use drawings in composition and process them in design of packaging	Learning outcomes: LO5, LO8	
	<b>Printing technology</b>		<b>5</b>
	Purpose: formation of knowledge about printing and development trends. Contents: characteristics of printing processes of main and special types of printing, analyzes trends and problems of printing process. Formed skills: calculate the parameters of printing process, analyze causes of defects in products and develop measures to prevent them.	Learning outcomes: LO9, LO10	
	<b>Postpress Technology</b>		<b>5</b>
	Purpose: formation of knowledge about technology of finishing printing products and bookbinding processes. Contents: processes of gluing, deformation and drying of semi-finished products and products of binding and binding processes; technological operations for their manufacture. Formed skills: choose the optimal technological scheme for manufacturing publication, calculate complexity of technological operations	Learning outcomes: LO9, LO10	
			<b>4</b>

	The purpose of the discipline: the formation of a professional position, his worldview, style of behavior, the development of professional ethics. Contents: Familiarization and study of the organization. The practical part of the educational process in production. Studying a professional cycle. Consolidation of the results of the theory. Formed skills: to be able to work on real printing equipment, fill out technological maps of printed	Learning outcomes: LO8, LO9	
	<b>ELECTIVE COMPONENT (EC)</b>		<b>29</b>
	<b>Training module 1</b>		<b>29</b>
	<b>Management in the printing industry</b>		<b>5</b>
	Purpose: formation of knowledge on theoretical and applied problems of modern management in printing. Contents: typical situations and adoption of management decisions, study of theoretical foundations of managing the production (operational) activities of printing industry Formed skills: draw up elementary balance sheets of enterprise, use basics of economic knowledge in production process.	Learning outcomes: LO6, LO10,LO11	
	<b>Quality management of printing products</b>		<b>4</b>
	Purpose: formation of knowledge on management of product quality. Content: quality terminology, principles and methods of quality management, accounting and analysis of defective printing products, basics of qualimetry, ISO standards. Formed skills: own statistical methods of product quality control; work with normative and technical documentation, standards, indexes of standards	Learning outcomes: LO8, LO10,LO11	
	<b>Technological design of printing production</b>		<b>5</b>
	Purpose: formation of knowledge about principles of designing technological processes in printing Contents: Analysis and selection of technology and equipment for prepress, printing and post-printing processes; planning the loading of equipment, materials Formed skills: choose equipment and sequence of technological operations in ratio of "price - quality"; perform technological calculations	Learning outcomes: LO8, LO9,LO11	