Ф.7.02-10

MINISTRY OF SCIENCES AND HIGHER EDUCATION OF THE REPUBLIC OF KAZAKHSTAN
M.O. AUEZOV SOUTH KAZAKHSTAN UNIVERSITY

«APPROVED»
Acting Chairman of the Board-Rector
_____ K. Nurmanbetov
«___» 03 _____2024

EDUCATIONAL PROGRAM

7M07260-Technology and design of textile materials

Registration Number	7M07200110
Code and Classification of Education	7M07-Engineering, processing and construction industries
Code and Classification of Areas of Training	7M072-Manufacturing and processing
Group of educational programs (EP)	M114 Textile: clothes, footwear and leather products
Type of EP	Acting EP
ISCE level	7
NQF level	7
IQF level	7
Language learning	Russian, Kazakh
The complexity of EP	120 credits
Distinctive features of EP	-
Partner University (JEP) -	-
University partner (DDEP) -	-

Shymkent, 2024

Developers:

Full Name	Position	Signature
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Baynurov A.	Director of «TEXTILE GROUP KZ» LLP	

The EP was considered at a meeting of the Academic Quality Committee of the Textile and food engineering the Higher School. Minutes # 4 «27» 02 2024 y.

Chairman of the Committee _____ Khanzharov N.

The EP was considered and recommended for approval at Educational-methodical meeting of M. Auezov SKU Minutes # 4 «28» 02 2024 y.

Chairman of the UMS _____ K. Sarykulov

The EP was approved by the decision of the Academic Council of the University. Minutes # 10 «28» 03 2024 y.

CONTENT

1. CONCEPT OF THE PROGRAM

Mission of the University	We are focused on generating new competencies, training a leader who translates research thinking and culture.
University Values	– Openness - open to change, innovation and cooperation. – Creativity - generates ideas, develops them and turns them into values – Academic freedom - free to choose, develop and act. – Partnership - creates trust and support in a relationship where everyone wins. – Social responsibility - ready to fulfill obligations, make decisions and be responsible for their results.
Graduate Model	– Deep subject knowledge, their application and continuous expansion in professional activity – Information and digital literacy and mobility – Research skills, creativity and emotional intelligence – Entrepreneurship, independence and responsibility for their activities and well-being – Global and national citizenship, tolerance to cultures and languages
Uniqueness of the EP	• Orientation to the regional labor market and social order through the formation of professional competencies of the graduate, adjusted to the requirements of stakeholders • Practical orientation and emphasis on the development of critical thinking and entrepreneurship, the formation of a wide range of skills that will allow to be functionally literate and competitive in any life situation and be in demand in the labor market
Academic Integrity and Ethics Policy	The university has taken measures to maintain academic integrity and academic freedom, protection from any type of intolerance and discrimination: • Rules of academic integrity (order No. 212 of October 10, 2022); • Anti-corruption standard (order No. 221 n/a dated 12/07/2021). • Code of Ethics (Order No. 212 of October 10, 2022)
Regulatory and legal framework for the development of EP	1.Law of the Republic of Kazakhstan “On Education”; 2. Model rules for the activities of educational organizations implementing educational programs of higher and (or) postgraduate education, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 30, 2018 No. 595 with amendments and additions dated December 29, 2021. No. 614 3. Standard rules for admission to training in educational organizations implementing educational programs of higher and

	postgraduate education, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated October 31, 2018 No. 600 with amendments and additions dated 06/02/2023. No. 252 4. State mandatory standards for higher and postgraduate education, approved by order of the Ministry of Education and Science of July 20, 2022 No. 2; 5. Rules for organizing the educational process in credit technology of education, approved by order of the Ministry of Education and Science of the Republic of Kazakhstan dated April 20, 2011 No. 152; with changes and additions from 09/23/2022. No. 79 6. Qualification reference book for positions of managers, specialists and other employees, approved by order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated December 30, 2020 No. 553. 7. Methodological recommendations for introducing ECTS principles into the educational process and expanding academic freedom. Appendix to the order of the Minister of Science and Higher Education. of the Republic of Kazakhstan dated February 12, 2024 No. 57 8. Guidelines for the development of educational programs for higher and postgraduate education, Appendix 1 to the order of the Director of the National Center for the Development of Higher Education of the Ministry of Education and Science of the Republic of Kazakhstan dated May 4, 2023 No. 601 n/k
Organization of the educational process	– Implementation of the principles of the Bologna Process – Student-centered learning – Availability – Inclusivity
Quality assurance of EP	– Internal quality assurance system – Involvement of stakeholders in the development of the EP and its evaluation – Systematic monitoring – Updating the content (updating)
Requirements for applicants	They are established in accordance with the Standard Rules for admission to training in educational organizations implementing educational programs of higher and postgraduate education by order of the Ministry of Education and Science of the Republic of Kazakhstan No. 600 dated October 31, 2018, with changes and additions dated June 2, 2023. No. 252
Conditions for the implementation of educational	For students with SEN (special educational needs) and persons with disabilities (PSI), tactile PVC tiles, specially equipped toilets, a mnemonic diagram, and shower bars have

programs (EP) for persons with disabilities and special educational needs (SSN)	been installed in educational buildings and student dormitories. Special parking spaces have been created. Crawler lift installed. There are desks for people with limited mobility (PLM), signs indicating the direction of movement, ramps. In the educational buildings (main building, building No. 8) there are 2 rooms with six working places adapted for users with disorders of the musculoskeletal system (DMS). For visually impaired users, the SARA™ CE Machine (2 pcs.) is available for scanning and reading books. The library website is adapted for the visually impaired. There is a special NVDA audio program with a service. The JIC website http://lib.ukgu.kz/ is open 24/7. An individual differentiated approach is provided for all types of classes and in the organization of the educational process.

2. PASSPORT of the Educational program

Purpose of the EP	Preparation of highly qualified undergraduates with advanced knowledge in the field of technology and design of textile materials, demonstrating the skills of pedagogical, analytical and logical thinking, creative approach in professional activities
Tasks of the EP	- providing conditions for acquiring a high intellectual level of development, mastering logical and critical thinking and the skills of scientific organization of labor in scientific and pedagogical activities; -development of the ability to use the acquired knowledge in professional activities to solve scientific, managerial, technological problems, prompt decision-making in problem situations; -development of skills of self-study of continuous professional development throughout their professional activities, which will allow masters to successfully adapt to changing conditions; - the formation of the competitiveness of graduates in the field of textile engineering to ensure the possibility of quick employment in their specialty or continuing their studies in doctoral studies. -Establishing conditions for the development of in-demand knowledge and skills, as well as a conscious attitude towards enhancing the welfare of society and conserving the planet within the framework of the SDGs
Harmonization of EP	• 6 level of the National Qualifications Framework of the Republic of Kazakhstan; • Dublin descriptors of the 6th level of qualification; • 1 cycle of a Framework for Qualification of the European Higher Education Area); • 6^{th} Level of European Qualification Framework for Lifelong Learning).
Connection of EP with the professional sphere	The sectoral qualification framework in the field of "Light industry" (Approved by the minutes of the meeting of the sectoral commissions on social partnership and regulation of social and labor relations for the mining, chemical, construction and woodworking industries, light industry and mechanical engineering dated August 16, 2016 No. 1) The professional standard "Raw cotton harvesting and primary cotton processing" was approved by the order of the Deputy Chairman of the Board of the National Chamber of Entrepreneurs of the Republic of Kazakhstan "Atameken" dated 26.10.2022 No.190 The professional standard "Specialist in the design of textiles and clothing" was approved by the order of the Ministry of Labor and Social Protection of the Russian Federation (prepared by the Ministry of Labor of Russia on 08.11.2019)
Name of the degree	After the successful completion of this EP, the graduate is awarded

awarded	the degree of Master of engineering «7M07260-Technology and design of textile materials"
List of qualifications and positions	7M07260- "Technology and design of textile materials" can occupy the positions of the head of the corresponding specialization of the division at the enterprise; development director, textile production engineer, head of the department of state bodies in the field of the textile industry, leading designer, production engineer of design and research institutes, teacher in higher educational institutions without presenting requirements for work experience in accordance with the qualification requirements of the "Qualification reference book of positions of managers, specialists and other employees ", approved by order of the Minister of Labor and Social Protection of the Population of the Republic of Kazakhstan dated May 21, 2012 No. 201-ө-mi with Appendix 2 to the Industry Qualifications Framework" Light Industry ", approved on August 16, 2016. (Minutes No. 1.)
Field of professional activity	- designing products for the textile industry, organizing the effective operation of the enterprise in the market, taking into account the requirements of the consumer, its internal capabilities; -processing and processing of raw materials, materials, receiving semi-finished products and products of the textile industry. -in the field of science; - in the field of education.
Objects of professional activity	-technological processes for the production of textile products; -experimental work in production laboratories; Test methods in laboratories for standardization and certification of textile products. -design documentation; - management of primary labor collectives; - educational and methodological documentation, technical teaching aids; - research work - teaching activities.
Subjects of professional activity	- fibers, threads, yarn from natural and chemical fibers, knitted fabrics and products, fabrics, natural and artificial leather, fur, non-woven and shoe materials; -technological production of textiles; -design documentation for the production of textiles; - computer-aided design system for textile and nonwoven materials in the textile industry, computer technology. - pedagogical process.
Types of professional activity	- design and engineering activities of textile production; - production and technological work with textile materials; - experimental research work with textile materials; - organizational and managerial;

	- operation of products of the textile industry. - design property quality assessment
Learning outcomes	**LO 1.** Demonstrate knowledge of a foreign language in interpersonal communication, professional activity, writing scientific articles. **LO 2.** To analyze the main ideological and methodological problems of an interdisciplinary nature arising in science at the present stage of its development, to evaluate various facts and phenomena based on the provisions and categories of the philosophy of science. **LO 3.** Evaluate the development and effective use of personnel in the organization; possess socio-psychological technologies for managing mass behavior. **LO 4.** Apply the methodology of scientific research, effective teaching methods in the field of the textile industry; critically evaluate the scientific organization of the work of a higher education teacher. **LO 5.** Demonstrate a creative approach and logical thinking when making operational managerial and technical decisions in non-standard situations in professional activities. **LO 6.** To implement the production process for the manufacture of textile products with the optimal production mode and to control the quality of products. **LO 7.** Assess the current problems of scientific and technical development of the raw material base, modern technologies for the disposal of textile industry waste, scientific and technical policy in the field of technology and design of textile products. **LO 8.** Offer engineering calculations, develop technological schemes and select initial data for the design of textile materials using modern automated control systems and computer programs. **LO 9.** Independently carry out experimental research, substantiate research results when discussing with specialists and a wider audience. **LO 10.** Analyze and process the achievements of science and technology, develop alternative options for the modernization and reconstruction of existing installations, participate in the creation of new projects that ensure the production of textile products in accordance with international quality standards.

3. COMPETENCES OF EP GRADUATE

GENERAL COMPETENCES (SOFTSKILLS). Behavioral Skills and Personal Qualities	
GC 1. Competence in managing one's own literacy	GC 1.1. Strive for professional and personal growth throughout life. GC 1.2. Constantly update their knowledge within the chosen trajectory and in an interdisciplinary environment, carry out further learning with a high degree of independence and self-regulation. GC 1.3. To be capable of reflection, an objective assessment of one's achievements, an awareness of the need to form new competencies and continue education in doctoral studies.
GC 2. Language competence	GC2.1. The ability to possess a sufficient level of communication in the professional field in the state, Russian and foreign languages for negotiating and business correspondence. GC 2.2. Ability to master the skills of mediation and intercultural understanding.
GC 3. Mathematical and scientific competence	GC 3.1. The ability to interpret the methods of mathematical analysis and modeling for solving applied problems in the field of study. GC 3.2. The ability to plan the setting of scientific experiments, integrate and implement the results of scientific research in the professional field. GC 3.3. The ability to analyze and comprehend modern methods of pedagogical and psychological science and apply them in pedagogical activity.
GC 4. Digital competence, technological literacy	GC 4.1. The ability to confidently use modern information and digital technologies, artificial intelligence systems for work, leisure and communications. GC 4.2. Proficiency in the use, recovery, evaluation, storage, production, presentation and exchange of information in a wide range of digital devices. GC 4.3. Ability to confidently use global information resources and apply technological literacy in research and computational and analytical activities.
GC 5. Personal, social and academic competencies	GC 5.1. Possession of the norms of business ethics, social and ethical values and focus on them in professional activities. GC 5.2. Formation of a personality capable of mobility in the modern world, critical thinking and physical self-improvement. GC 5.3. Ability to work in a team, correctly, clearly and reasonably defend one's position during discussions and make decisions of a professional nature. GC 5.4. Ability to adequately navigate in various social spheres of activity and in conditions of uncertainty.

	GC 5.5. Ability to find compromises, correlate your opinion with the opinion of the team.
GC 6. Entrepreneurial competence	GC 6.1. The manifestation of leadership qualities and the ability to have a positive impact on others, to lead a team. GC 6.2. The ability to create conditions for the development of creative and entrepreneurial skills of the team. GC 6.3. The ability to work in a mode of uncertainty and rapidly changing task conditions, make decisions, respond to changing working conditions, allocate resources and manage your time. GC 6.4. Ability to work with consumer needs
GC 7: Cultural Awareness and Expressiveness	7.1. Ability to show worldview, civil and moral positions. 7.2. The ability to be tolerant of the traditions and culture of the peoples of the world, to have high spiritual qualities.
PROFESSIONAL COMPETENCES (HARDSKILLS).	
Theoretical knowledge and practical skills and abilities specific to this direction	(PC1) general professional. - have an idea of the textile industry, its branches, used raw materials, technological processes and equipment, know the structure and principles of operation of modern textile equipment, promising directions for the development of textiles;
	(PC2) production and technological activities in the textile industry. -the ability, on a scientific basis, to solve professional production problems - to control the technological process, develop production rates, develop technological standards for the consumption of materials, blanks, raw materials and electricity, to choose equipment and technological equipment;
	(PC3) technological processes for the production of textile products -analyze and improve technological processes - the development of measures for the integrated use of raw materials, for replacing scarce materials and finding ways to utilize production waste, and developing proposals for its prevention and elimination;
	(PC4) research activities -the ability to conduct a detailed analysis of scientific and technical information in the field of the textile industry for the purpose of scientific, patent and marketing support for ongoing scientific research; the ability to generalize the results of research work in the form of scientific publications, defend one's position during the discussion and make professional decisions in conditions of uncertainty and risk;

	(PC5) design and engineering documentation for the production of textiles -develop methodological and regulatory documents, technical documentation, as well as proposals and measures for the implementation of the developed projects and programs; find optimal solutions when creating products, taking into account the requirements of quality, reliability and cost, as well as terms of execution, life safety and environmental friendliness

4 Matrix of correlation of EP learning outcomes in general with modules formed by competencies

	LO **1**	LO **2**	LO **3**	LO **4**	LO **5**	LO **6**	LO **7**	LO **8**	LO **9**	LO **10**
GC1	+									
GC 2			+		+					
GC 3		+	+		+					
GC 4				+				+		
GC 5	+	+		+					+	
GC 6	+		+					+		
GC 7		+					+	+		
PC1						+	+			
PC 2			+			+				+
PC 3							+		+	
PC 4				+				+	+	
PC 5						+		+		+

5. MATRIX OF THE INFLUENCE OF DISCIPLINES ON FORMATION OF LEARNING OUTCOMES AND INFORMATION ON LABOR INTENSITY

№	Module name	Cycle	Component	Component Name	Brief course description	Number of credits	Formed learning outcomes (codes)									
							LO1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8	LO 9	LO 10
1	Scientific and pedagogical training module	BD	HsC	History and Philosophy of Science	**The purpose:** Study of the problems of the phenomenon of science as a subject of special philosophical analysis, patterns and trends in the development of special activities for the production of scientific knowledge taken in a socio-cultural context. **Contents:** Identification of the specifics and relationship of the main problems of history and philosophy of science. Study of the laws of the development of science and the structure of scientific knowledge, methods of scientific research. Knowledge of the main concepts and directions of the non-classical and post-classical stage of the development of science. Analysis of the realities of modern theory and practice based on understanding the methodology of natural science, socio-humanitarian and technical knowledge. Critical thinking as a prerequisite for the development and functioning of modern society. Technologies for the development of critical thinking: consideration and study of the logic of arguments. Formation of critical reflexive thinking and metacognitive abilities.	4		v								
		BD	HsC	Foreign Language (Professional)	**The purpose:** Systemic deepening of communicative competence within the framework of foreign language education's international standards based on the further skills and abilities' active language proficiency development in the professional activities of the future master's student	4	v									

					Contents: Levels B2, C1 are presented in the form of a pragma-professional orientation for professional and academic aims at an advanced level: scientific information base, interpretation of scientific information, argumentation, persuasion, scientific controversy, academic writing. Use of innovative methods and technologies, and attraction of modern means (Internet resources). Demonstration of language material's knowledge in any related discipline											
		BD	HsC	Psychology of Management	**The purpose:** To ensure the competence of a psychologist by mastering his knowledge in the field of psychological management, developing skills in managing the organization's human resources. **Contents:** Methodological foundations of management psychology. Development of psychological theories of management. General theoretical questions of management psychology. Psychology of managerial communication. Psychological characteristics of the staff. Psychology of employee motivation. Technologies of human resource management of the organization. Psychological support of the personnel policy of the organization. Psychology of conflict in the organization. Technologies for preventing professional deformation of personality. Practical implementation in the form of creating diagnostic tools, developing digital methods for training leaders, and management consulting.	4			*v*		*v*					
	Methodological foundations of teaching	ChD	HsC	Higher School Pedagogy	**The purpose:** Is to develop undergraduates' skills in planning and organizing the educational and scientific process based on the principles of student–oriented learning and assessment, extrapolating innovative (including digital) and practice-oriented	4				***v***						

	Modern scientific technologies of textile production				teaching methods and technologies into the educational process, preparing them for academic and scientific and methodological activities in the educational educational institution. **Contents:** Higher school pedagogy as a science and academic discipline. Methodology of higher education pedagogy. Modern global trends in the development of higher education. History, current state and prospects for the development of higher education in Kazakhstan. Didactics of higher education. Student-centered learning and assessment in higher education, its patterns and principles. Contents of education in higher education institutions. Innovative pedagogical technologies, forms and methods of teaching in higher education institutions. Concepts, strategies, mechanisms for promoting global and national values among students and in society. Department of OHPO. Support and develop the educational environment and organizational culture in accordance with the policies and procedures of the OHPO.											
		PD	VC	Teaching Methods of Special Disciplines	**The purpose:** Formation of comprehensive methodological, scientific and research thinking of teaching textile disciplines in higher education among master's student. **Contents:** Modern approaches to modeling pedagogical activity and teaching methods spec. disciplines at the university in the context of European integration of the scientific and educational system of the Republic of Kazakhstan in accordance with the declaration of the Bologna process. To know the subject, goals and significance of the methodology and methods of teaching special. Disciplines the main provisions of state educational standards and structures of curricula of various levels and content. Mastering methods and means of	5									**v**	

					effective communication in the learning process, including the use of modern educational technologies.											
		BD	VC	Pedagogical Practice	**The purpose:** Formation of practical skills in teaching and learning methods. At the same time, undergraduates are involved in conducting undergraduate studies. **Contents:** Familiarization with the structure of the educational process in a higher educational institution and the rules of the teacher's accounting documentation.	4			**v**	v	v					
		BD	EC	Innovative Technologies of Textile Materials	**The purpose:** Understanding the basic principles of innovative textile design. **Contents:** Application of a systematic approach in the design and production of textile materials. Development of new means and methods of shaping products, taking into account the capabilities of technology and technology. Mathematical description of technological processes. Improvement of technological processes in order to improve the quality and competitiveness of products.	5						**v**	**v**			
		BD	EC	Resource-saving technologies in textile production	**The purpose:** Formation of a resource-saving strategy for master's student at a manufacturing enterprise, organization of low-waste production and waste-free technologies. **Contents:** Ability to understand modern problems of scientific and technical development of the raw material base, modern technologies for the disposal of textile industry waste, scientific and technical policy in the field of technology and design of textile products; systematize and summarize information on the formation of enterprise resources.							***v***	***v***			
		BD	EC	New Materials of Weaving and Knitting Production	**The purpose:** Formation of master's student deep knowledge of theoretical foundations and practical skills in assessing the quality indicators of textile materials and the use of modern methods of	5						***v***	***v***			

					monitoring the compliance of the properties of textile fibrous materials with state standards. **Contents:** Independently perform technological calculations of modern materials of weaving and knitting production; critically analyze the influence of the properties of raw materials on the properties of the finished fabric.											
		BD	EC	Methodology of scientific creativity	**The purpose:** Formation of correct ideas among master's student about the principles of conducting scientific research, in particular, as well as the formation of academic writing skills in them, essential for the successful execution and writing of research papers and a master's thesis. **Contents:** Analyze modern standards for the organization of scientific research and the construction of reporting scientific and technical documentation; be able to apply the principle of logical structuring in relation to the text of research purposes: research, report, review.								***v***	***v***	
				Research practice	**The purpose:** Acquaintance with the latest theoretical, methodological and technological achievements of domestic and foreign science, modern methods of scientific research, processing and interpretation of experimental data **Contents:** Consolidation and deepening of theoretical knowledge of undergraduates obtained during training, acquisition and development of skills of independent research work. Performing theoretical and experimental research on the topic of the dissertation.	7							v	v	v	
	Design and control of material properties Managem	PD	EC	Design of textile materials and products with specified properties	**The purpose:** Formation of master's student in the field of designing textile materials and products with specified properties and principles of analysis of various technological processes of spinning and production of nonwovens on the basis of experimental research, as well as physical processes	6						v	v			

	ent and computerization of textile production				occurring at the same time. **Contents:** Analyze methods of modeling technological processes of textile production: selection of the main factors, assessment of the influence of factors, construction of linear and nonlinear models of technological processes.											
		PD	EC	Design of special-purpose products	**The purpose:** Formation of master's student in the field of design of special-purpose products and production of new textile products. **Contents:** To provide an opportunity for correct and creative solutions to problems related to the preparation of production during the development of new textile products, to reveal the stages of designing textile products, the necessary documentation for solving production tasks.							v	v			
		PD	EC	Managing nonwoven properties	**The purpose:** Formation of master's student skills that provide a qualified solution to problems arising in the design and production of nonwovens with the required properties, improvement of technological processes and improvement of the quality and competitiveness of domestic products. **Contents:** To study the types of raw materials used for the production of nonwovens for various purposes; types of technological equipment for the production of nonwovens (principle of operation, technological parameters); technological processes for transitions in the production of various nonwovens, features of the production of nonwovens from various types of raw materials; means and methods of technical control carried out in the production of nonwovens.	4							v			
		PD	EC	New spinning methods	**The purpose:** Formation of master's student of the systems and the spinning process and the main technological processes of spinning production, the equipment used the types of spinning machines. **Contents:** Reveals the essence of the main							v	v			

					technological processes of spinning production. Sets out the purpose of the equipment used in spinning production, explains the principle of operation of spinning machines.											
		PD	EC	Quality management of textile products	**The purpose:** To give a holistic view of the quality management of textile products, as well as the formation of practical skills in working with documents that establish requirements for textile products. **Contents:** Be able to apply in practice the methodology of harmonization of domestic and international standards in the field of quality management of textile products.	6						v	v			
		PD	EC	Latest Tools of Quality Management	**The purpose:** Formation of master's student competencies aimed at mastering the textile industry, as well as skills in the field of quality management of textile products. **Contents:** Use the simplest, new and latest product quality management tools to solve problems related to non-conformity of products.							v	v			
		BD	EC	Computer Aided Design of Woven and Knitted Fabric and Textile Products	**The purpose:** The study of information computer design of fabrics, knitwear and textile products, as well as in the field of computerization of calculations of technological parameters of fabrics and the main technological parameters of the weaving process. **Contents:** Exploring the capabilities of the main Adobe Photoshop, Bust CAD, 3Ds Max programs, working with tools, layers, a material editor and basic modifiers, color settings and image visualization.	5						v	v			
		BD	EC	Experiment planning and optimization of textile production processes	**The purpose:** Training of master's student with the necessary knowledge in the field of optimization of managerial and technological processes of textile production. **Contents:** Analytical optimization method. Multi-							v	v			

					criteria optimization problems. Combine modern methods of organizing and conducting scientific research in the field of textile materials production; carry out critical analysis and evaluation of the results obtained.											
	Technology and equipment for the production of textile materials	PD	EC	Functional groups of knitting machines	**The purpose:** The study of the basic principles of the operation of knitting machines, methods for determining the technological parameters of knitted fabrics and products with reduced material consumption. **Contents:** Classification and layout of knitting machines. Release and feeding of thread on cross knitting and warp knitting machines. Mechanisms for the removal of knitting machines. Drives and observers of knitting machines. Software control of knitting machines. Describe the design and principle of operation of knitting machines of knitting production, main and auxiliary mechanisms.	4							v			
		PD	EC	Functional groups of textile machines	**The purpose:** Give a holistic view of textile machines, calculations and design of units and mechanisms of machines of the textile industry. **Contents:** To study the principle of interaction of the main mechanisms of textile machines; to get acquainted with the design features of textile equipment; to learn how to determine the influence of various organs of textile equipment on the production of the web.											v
		PD	EC	Production Technology of Melange Yarn	**The purpose:** Formation of master's student in the field of technological processes for the production of mélanges yarn. **Contents:** To consider methods of numerical analysis of models to assess the influence of fiber parameters on the properties of the products; To reveal the nature of changes in the parameters of mélange yarn depending on the properties of raw materials and technological modes; To study	5							v			

					methods for designing materials with specified characteristics based on existing models and their computer analysis.											
		PD	EC	Enzymatic finishing technology for textile materials	**The purpose:** Formation of master's student in the field of application of enzyme preparations for the purpose of modification of polymer materials and use in detergents and processes of preparation, coloring, final finishing of textiles. **Contents:** General principles of structure, current state and prospects for the use of enzyme preparations, criteria for evaluating the effectiveness of the use of enzyme preparations in technological processes							v	v			
		PD	EC	Applied problems of nonlinear mechanics of flexible threads	**The purpose:** Theoretical study of the interaction of warp and weft threads in the zone of formation of a single-layer plain weave fabric. **Contents:** Selection and justification of the values of the initial data for calculating the parameters of tissue formation. Determination of the number of wrinkles in the area of tissue formation.	5						v	v			
		PD	EC	Applied mechanics of textile yarns and fabrics	**The purpose:** The study of the structure and properties of fibers, threads and fabrics, the establishment of a relationship between the parameters of the structure and properties of materials, the identification of the distinctive features of their production processes, the ability to apply this knowledge in the processing of materials in textile production. **Contents:** Those who possess knowledge and methods of assessing the quality of textile materials, methods of processing experimental results, skills of modern experimental and computer technology, methods of solving optimization problems in the educational and professional sphere.							v	v			
		PD	EC	Optimal Design of the Mixture	**The purpose:** Efficient and optimal use of modern high-performance machinery and technology in the	6										

				Composition	production of cotton yarn, chemical fibers and their mixtures. **Contents:** To determine the features and manufacture of various types of fabrics; to select technological modes of material processing in accordance with its textile characteristics; to determine the front and back side of the fabric, the fibrous composition, the direction of the warp thread and weft by appearance.											
		PD	EC	Modern Technologies of Spinning Production	**The purpose:** Acquisition by masters of knowledge about the main directions of development of machinery and technology of spinning production and the ability to correctly navigate in the selection of the latest equipment for equipping an existing enterprise. **Contents:** Design features of the main and auxiliary workshops of spinning production, taking into account the range of products. Selection of the assortment. Calculation of the quantity of raw materials and equipment.											
	Modern methods of dyeing and finishing of textile materials	PD	EC	Resource Saving Technology in Finishing Production	**The purpose:** The development of master's student to the creative analysis of specific production situations, their generalization and the search for rational solutions based on knowledge of technology and advanced technologies of finishing production. **Contents:** To analyze the physic-chemical bases of technological processes of preparation, coloring and final finishing of textile materials in finishing production. To substantiate and choose rational schemes for the construction of technological processes for the preparation of textile materials of various fibrous composition, taking into account the required consumer properties.	7						v	v			
		PD	EC	Resource Saving Technology in Finishing Production	**The purpose:** Formation of master's student in the use of modern resource-saving technologies in finishing production.							v	v			

					Contents: To identify the stages of resource saving in the manufacture of a new range of knitwear in various ways. To analyze the market of modern knitting equipment for various purposes and its technological capabilities for the manufacture of products using resource-saving technology.											
	Final certification module			Research Work of a Master Student, Including Passing an Internship and Completing a Master's Thesis	**The purpose:** Formation of general cultural and professional competencies necessary for conducting both independent research work, the result of which is the writing and successful defense of a master's thesis (project), and research work as part of a research team. **Contents:** Independent conduct of scientific research, evaluation of scientific information, use of scientific knowledge in practical activities; Formulate and solve problems arising in the course of scientific research (experimental research) work.	24	v				v	v	v	v	v	v
				Execution and Defense of Master's Thesis	**The purpose:** To confirm the level of professional and general education training of the graduate according to the corresponding master's program and the degree of mastery of the methodology of scientific knowledge and compliance of the acquired knowledge, skills, skills and competencies with the requirements of the state mandatory standards of education of the magistracy. **Contents:** Demonstrate the ability to correctly formulate a problem, determine the state of its development, and highlight undeveloped (or insufficiently developed) aspects. Demonstrate the ability to independently substantiate conclusions and formulate practical recommendations for the practical use of the results obtained and further study of the problem.	8					v	v		v	v	
Total						**120**										

6. SUMMARY TABLE REFLECTING THE VOLUME ASSIMILATED CREDITS OF EDUCATION PROGRAM MODULES

Course of Study	Semester	The number of mastered modules	The number of studied disciplines		Number of KZ credits					Total hours	Total KZ credits	The number of	
			VC	EC	Theoretical training	Pedagogical practice	Research practice	SRWM	Final examination			exam	Number of D.Cr. t:
1	1	5	5	2	29			1		900	30	5	3
	2	5		4	27	4		3		900	30	4	2
2	3	4		4	18		7	2		900	20	2	2
	4	2			10			10		900	20	2	1
	5							8	12		20		1
Total			**5**	**10**	**84**	**4**	**7**	**24**	**12**	**3600**	**120**	**13**	**8**

7. STRATEGIES AND METHODS OF TRAINING, MONITORING AND EVALUATION

Learning Strategies	**Student-centered learning:** the learner is the center of teaching/learning and an active participant in the learning and decision-making process. **Practice-oriented learning:** focus on the development of practical skills.
Teaching methods	Conducting lectures, seminars, various types of practices: • application of innovative technologies: • problem learning; • case study; • work in a group and creative groups; • discussions and dialogues, intellectual games, competitions, quizzes; • methods of reflection, projects, benchmarking; • Bloom's taxonomy; • presentations; • rational and creative use of information sources: • multimedia educational programs; • electronic textbooks; • digital resources. Organization of independent work of students, individual consultations.
Monitoring and assessing the achievability of learning outcomes	**Current control** on each topic of the discipline, control of knowledge in classroom and extracurricular activities (according to the syllabus). Assessment Forms: • survey in the classroom; • testing on the topics of the academic discipline; •test papers; • protection of independent creative works; • discussions; • trainings; • colloquia; • essays, etc. **Midterm control** at least two times during one academic period within the same academic discipline. **Intermediate certification** is carried out in accordance with the working curriculum, academic calendar. Conduct forms: • exam in the form of testing; •oral exam; •a written exam; • combined exam;

	• protection of projects; • protection of practice reports. **Final state certification.**

EDUCATIONAL AND RESOURCE SUPPORT OF THE EP

Information Resource Center	Information and educational portal "PROFESSOR" www.portal.ukgu.kz provides information about the educational process at SKU. Thanks to an efficient search system, it is possible to obtain information related both personally to the undergraduate, such as lists of classes, exam schedules by semesters, academic performance, teaching materials for the current semester, and in general for the university (data about faculties, teachers, etc.). The library website http://lib.ukgu.kz is an indicator of the level of information service. The site has a wide range of reference and bibliographic apparatus of the library, bulletins of new acquisitions, new publishers, virtual exhibitions, news feed and other services. At the request of students and teachers, thematic collections of Internet resources are formed. For teachers, undergraduates and applicants there is a section "Information for scientists", which presents the requirements for educational, scientific and reference publications in accordance with GOSTs; rules for the design of lists of references; list of periodicals and scientific and technical publications of the Republic of Kazakhstan, recommendations for determining the citation index. Users are provided with a modern reference and bibliographic apparatus: Electronic catalogue, Electronic card index of articles, and Electronic card index of abstracts of dissertations. Work with catalogs is carried out in two forms: electronic and traditional (card). The total volume of the electronic catalog is 151513 bibliographic records. The electronic catalog of the JIC is presented on the website http://lib.ukgu.kz. For university users, the Educational and Information Center (library) has created up-to-date full-text databases of its own generation: “Proceedings of the teaching staff of SKSU named after. M. Auezov”, “Electronic Archive”, “AlmaMater” and others, which since 2017 have been combined into a single search system for ease of search. Opened on-line access to databases: "SpringerLInk", "Scopus", "Polpred", "Thomson Reuters ISI Web of Science", "ScienceDirect", "EBSCO", to Kazakhstani databases: "KazPatent", "Epigraph" , "Zan", "RMEB".
Material and technical base	Master's educational program 7M07260 - Technology and design of textile materials, equipped in accordance with the requirements with the necessary classroom fund, educational laboratories, computer classes, instruments and equipment for performing laboratory scientific experiments

	Laboratories are equipped with a large number of equipment and devices: Haisen china HS 808 M and Haisen china HS 808 P automatic hosiery knitting machines, Haisen china HS 305 automatic glove knitting machine, 1603 Teatime combing machine , tape machine "LMSh-220-1T", wrapping machine "Merry lock", sewing machine "Bernette", knitting machine "Silver" SK-280, tearing machine RM 3-1, laboratory electronic scales Adventurer, microscope XSZ-137B, drying ShS-80 cabinet, VUS MT 250 centrifuge, VUS MT 250 moisture meter, ShS-80 drying cabinet, MV-4M aspiration psychrometer, WT torso scales, analytical scales, thermostats, refrigerator, water baths. Laboratories are equipped with personal protective equipment, first aid kits, and means of extinguishing a fire (fire extinguisher), equipped with fume hoods. Undergraduates also have the opportunity to conduct research in accredited laboratories of the university: Laboratory of Physical and Chemical Research Methods named after. Academician S.T. Suleimenov "SAPA" and Testing regional laboratory of engineering profile (IRLIP) "Structural and biochemical materials". Laboratories are equipped with modern equipment and instruments that are annually verified, which ensures the accuracy and reliability of research results.

AGREEMENT SHEET

according to the educational program 7M07260-Technology and design of textile materials

Director of DAA	Sign	Naukenova A. S.
Director of DASc	Sign	Nazarbek U.B.
Director of DE&C	Sign	Bazhirov T. S.

Appendix 1

Review from the employer

of Educational program 7M07260 - "Technology and Design of Textile Materials" developed in SKU named after M. Auezov, Shymkent

Brief description of the company and the profile of its activities. The textile plant LLP "HBP Talapty", with a production capacity of more than 2,800 tons of yarn and 14 million linear meters of finished and rough fabric per year, is located in the city of Shymkent, South Kazakhstan Region. Due to the excellent quality of products, the plant is not only one of the leaders of Kazakhstan's light industry, but also positions itself as an international brand - a manufacturer of cotton products of the highest level, which are exported to Lithuania, Latvia, Germany, Italy, Poland, as well as to neighboring countries.

Today cotton plant LLP "HBP Talapty"produces a wide range of products. These are finished trimmed fabrics, terry and waffle towels and sheets, bedding sets, bed linen of all standard sizes, towels, sheets, pillowcases, duvet covers, children's textiles, as well as harsh yarn (100% cotton), harsh fabrics (100% cotton, smooth, terry, wafer). Textiles and integrated products are also produced here.

Learning outcomes and competencies, their relationship with the demands of the labor market. SKU them. M. Auezov is aimed at training highly qualified specialists demanded on the labor market, integrating the university into the global educational environment, a breakthrough in the quality and effectiveness of research and innovation, decent positioning of the university in domestic and international universities.

The university strategy provides for improving the quality of educational services in all areas of activity, further work on the principles of total management and the implementation of the unity of the educational, scientific and educational process, allowing to make a worthy contribution to the industrial-innovative development of the country.

Activities of SKU them. M. Auezov is based on the concept of creating a complex of continuing professional education that meets the requirements of the Bologna process and is entered by active scientific research at all stages of education - from higher and postgraduate to professional retraining and advanced training of personnel.

The presence of components that develop practical skills. The practice of undergraduate students is an obligatory form of the educational process, it consolidates theoretical knowledge and conducting classes at the enterprise allows students to acquire practical skills and serves as training for their professional adaptation in the workplace in the future. The themes of the undergraduate and

graduate bachelor's studies, and educational research work were also coordinated with the representatives of the enterprises.

Conclusion on the EP 7M07260 - "Technology and Design of Textile Materials". The program structure is logical, consistent and ensures their achievement.

Director of LLP "HBP Talapty" _____ Dyisenbaev M.T