Φ.7.02-09

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



EDUCATION PROGRAMME

6B07261 - «Innovative textiles, design and decor»

Registration number	6B07200207
Code and classification of the field	6B07- Engineering, manufacturing and
of education	construction industries
Code and classification of training	6B072- Manufacturing and processing
areas	industries
Group of educational programs	B070- Ttextiles: clothing, footwear and
	leather goods
Type of EP	current (updated)
ISCE level	6
NQF level	6
SQF of education level	6.1
Language of learning	English
The complexity of the EP	240 credits
Distinctive features of EP	-
University Partner (JEP)	-
University Partner (TDEP)	-

Shymkent, 2022 y.

Developers:

Desition		Sign
Name	Position	da
Eshahanov A A	a.d.Head of the chair.	Custoner
Estizitatiov A.A.	associate Professor, candidate sciences	A
Togataev 1.	master, seniorlecturer	- Cly
Asanov E.A.	master, seniorlecturer	time
Bektyrsynova A. K	master, seniorlecturer	ство сочиниена
Kaldibaeva O.	Group JT-20-4k1	AMA
Millioner A.D.	Group JT-20-4k1	A Harry
Toktar N.A	director of "Bal decor" LLP»	DAY AL
Oguz D.	director of Bal Textile LLP	STATISTICS IN CONT
Iskhakhov T. Zh.	director of HBPTalapty	
Dyisenbaev M.I		200640005

The EP was considered in the direction of training "Production and Processing Industry" at a meeting of the academic committee,

Minutes # $1 \ll 27 \gg 02 2022 y$.

Chairman of the Committee ______KhanzharovN.S.

The EP was considered and recommended for approval at Educationalmethodical meeting of M. Auezov SKU

Minutes # $1 \ll 202$ 202 202 2 y.

The EP was approved by the decision of the Academic Council of the University

Minutes # $1 \ll 22 \gg 08 202 2 \text{ y}.$

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1. CONCEPT OF THE PROGRAM

University Mission	Generation of new competencies, training of a leader who translates	
	research and entrepreneurial 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 in rapidly changing	
	conditions.	
	• 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.	
The uniqueness of the	• Orientation to the regional labor market and social order through the	
educational program	formation of professional competencies of the graduate, adjusted to the	
	requirements of stakenolders	
	• Practical orientation and emphasis on the development of critical thinking and entrepreneutable, the formation of a wide range of skills	
	that will allow to be functionally literate and compatitive in any life	
	situation and be in demand in the labor market	
Acadomic Integrity and	The University has taken measures to maintain academic integrity and	
Ethics Policy	academic freedom protection from any kind of intolerance and	
Etines I oney	discrimination.	
	• Rules of academic integrity (Minutes of the Academic Council No. 3	
	dated 30 10 2018):	
	• Anti-Corruption Standard (Order No. 373 n/k dated 27.12.2019).	
	• Code of Ethics (Protocol of the Academic Council No. 8 dated	
	31.01.2020).	
Regulatory and legal	1. Law of the Republic of Kazakhstan "On Education";	
framework for the	2. Standard rules of activity of educational organizations implementing	
development of EP	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. State obligatory standards of higher and postgraduate education,	
	approved by order of the Ministry of Education and Science of the	
	Republic of Kazakhstan dated July 20.2022 No. 2;	
	4. Rules for organizing the educational process on 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;	
	5. Qualification directory 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 December 30, 2020 No. 553.	

	6. Guidelines for the use of ECTS.		
	7. Guidelines for the development of educational programs for higher		
	and postgraduate education, Appendix 1 to the order of the Director of		
	the Center for the Bologna Process and Academic Mobility No. 45 o /		
	d dated June 30, 2021		
Organization of the	• Implementation of the principles of the Bologna Process		
educational process	Student-centered learning		
	• Availability		
	• Inclusivity		
Quality assurance of the	Internal quality assurance system		
Educational program	• Involvement of stakeholders in the development of the Educational		
	Program and its evaluation		
	Systematic monitoring		
	• Actualization of the content (updating)		
Requirements for	It is established according to the Model Rules for admission to training		
applicants	in educational organizations, implementing educational programs of		
	higher and postgraduate education, Order of the Ministry of Education		
	and Science of the Republic of Kazakhstan No. 600 dated 31.10.2018		

2. PASSPORT of the Educational program

Purpose of the EP	Training of highly qualified bachelors with the	
	necessary professional and personal competencies, a	
	competitive level of knowledge, skills and	
	professional skills in the field of design, decoration of	
	textile materials and products.	
Tasks of the EP	- formation of knowledge and skills in the field of	
	entrepreneurship, business development in the	
	technology of production of taytile materials and	
	products:	
	- providing them with lifelong learning skills that will	
	enable them to successfully adapt to changing	
	conditions throughout their professional concerns.	
	conditions throughout their professional careers,	
	- creating conditions for students to acquire a nigh	
	general intellectual level of development, mastering	
	competent and developed speech, culture of thinking	
	and skills of scientific organization of work in the	
	textile industry;	
	- the formation of professional competencies in the	
	field of design and decoration of textile materials and	
	products, to ensure the possibility of their employment	
	in the specialty or continuing education at subsequent	
	levels of education.	
Harmonization of EP	• 6th 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 Oualification Framework for	
	Life long Learning).	
Connection of EP with	The industry qualifications framework in "Light	
the professional sphere	Industry" was approved by the minutes of the meeting	
the professional sphere	of the industry commissions on social partnership and	
	regulation of social and labor relations for the mining	
	and metallurgical chemical construction and	
	woodworking industries light industry and	
	machanical angingering dated August 16, 2016 No. 1	
	The professional standard "Spacialist in the dation of the standard "Spacialist in the dation of the standard "Spacialist in the dation of the standard standard "Spacialist in the dation of the standard standar	
	I ne 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 the	
	Russian Federation on 08.11.2019)	
Name of the degree	After the successful completion of this EP, the	

awarded	graduate is awarded «Bachelor of Engineering and	
	Technology» 6B0/261 – «Innovative textiles, design	
	and decor»	
List of qualifications	According to EP $6B0/261 - $ «Innovative textiles,	
and positions	design and decor», they can hold primary positions of	
	technologist, engineer, specialist in research	
	institutions, design and design organizations, without	
	presenting requirements for work experience in	
	accordance with the qualification requirements. The	
	qualification directory of positions of managers,	
	of the Minister of Labor and Social Protection of the	
	Deputation of the Depublic of Kazakhatan datad	
	December 20, 2020 No. 552	
Field of professional	The field of professional activity is the taytile industry	
r leiu of professional	ine field of design and any desting of the till	
activity	products: in the field of research: in the field of	
	standardization certification and quality management	
	technical expertise)	
Objects of professional	- branches of the textile complex and processing	
activity	industries research organizations firms of various	
	forms of ownership, factories or textile enterprises, as	
	well as control and production laboratories, regulatory	
	and technical documentation.	
Subjects of professional	- textile materials and products, knitted fabrics, natural	
activity	and artificial leather, fur, non-woven and shoe	
	materials;	
	- technological equipment for textile production;	
	- design and technical documentation of textile	
	production;	
	- normative and technical documentation and systems	
	of standardization, certification of textile production;	
Types of professional	- production and management management of existing	
activity	technological processes of production of yarn and	
	yarns, fabrics, knitwear, nonwovens; operation and	
	repair of technological equipment and automation of	
	technological processes of production;	
	- project-implementation of complex design projects,	
	products and systems, subject and information	
	complexes based on the methodology of introduction	
	of design and artistic activities; knowledge of	
	technologies for manufacturing design objects and	
	ayout design; knowledge of methods of ergonomics	
	and antifiopometry.	
	- mormation technology knowledge of the dastes of	

	industrial production; knowledge of modern	
	information technologies for creating graphic images,	
	project documentation, computer modeling;	
	- theoretical and experimental research in the field of	
	production technology of fabrics and knitwear using	
	modern methods of experiment planning	
I earning outcomes	LO1 Communicate freely in the professional	
	environment and society in Kazakh, Russian and English, taking into account the principles of academic writing and the culture of academic honesty.	
	socio-economic and engineering knowledge in professional activities, methods of mathematical data processing, theoretical and experimental research, regulatory documents and elements of economic analysis	

 LO3. Have information, computer and digital literacy, generalization, analysis and perception of information, setting goals and choosing ways to achieve it. LO4.Develop compositions of textile fabrics, determine the criteria and indicators of artistic and design proposals when working with materials and products. LO5. Offer design solutions and provide their economic justification, taking into account materials, construction, technology, and engineering systems.
LO6. Analyze, evaluate the physical-mechanical,
hygienic consumer properties, causes of defects and defects of textile materials and products, using modern
testing devices and equipment.
LO7. Demonstrate spatial imagination, artistic taste,
and mastery of the methods of modeling and coloring
textile materials.
LO8.Implementation of modern innovative
technologies and processing of competitive textile
LOO Conduct angingering monitoring of
technological lines for the production of high quality
materials and products
LO10. Study scientific and technical information
domestic and foreign experience, participate in research to
improve technological processes and equipment, apply the
results in practice.
LO11. Use research, entrepreneurial skills in
professional activities.
LO12.Demonstrate skills of self-education and self-
education, healthy lifestyle throughout life, work
individually and in a team.

3. COMPETENCES OF EP GRADUATE

GENERAL COMPETENCIES (SOF	TSKILLS). Behavioral skills and personal
qualities	
GC 1. Competence in managing your	GC1.1. The ability to self-study, self-
literacy	develop and constantly update their
	knowledge within the chosen trajectory and
	in an interdisciplinary environment.
	GC1.2. The ability to express thoughts,
	feelings, facts and opinions in the
	professional sphere.
	GC1.3. The ability to mobility in the
	modern world and critical thinking.
GC 2. Language competence	GC2.1. Ability to build communication
	programs in the state, Russian and foreign
	languages.
	GC2.2. The ability to interpersonal social
	and professional communication in the
	conditions of intercultural communication.
GC3. Mathematical competence and	GC3.1 The ability and willingness to apply
competence in the field of science	the educational potential, experience and
	personal qualities acquired during the study
	of mathematical, natural science, technical
	disciplines at the university to solve
	professional problems.
GC4. Digital competence, technological	GC4.1. The ability to demonstrate and
literacy	develop information literacy through the
	mastery and use of modern information and
	communication technologies in all areas of
	their lives and professional activities.
	GC4.2. The ability to use various types of
	information and communication
	technologies: Internet resources, cloud and
	mobile services for the search, storage,
	protection and dissemination of information.
GC5. Personal, social and educational	GC5.1. The ability to physical self-
competencies	improvement and orientation to a healthy
	life to ensure full-fledged social and
	professional activities through methods and
	means of physical culture.
	GC5.2. The ability to socio-cultural
	development based on the manifestation of
	citizenship and morality.
	GC5.3. The ability to build a personal

	educational trajectory throughout life for
	self-development, career growth and
	professional success
	GC5.4 The ability to successfully interact in
	a variety of socio-cultural contexts during
	study at work at home and at leisure
CC6 Entranganzial compatance	CC6.1 The ability to be creative and
OCO. Entrepreneuriar competence	onterprising in different environments
	CC6.2 Ability to work in the mode of
	upcontainty and rapid change of task
	and the decisions allocate
	conditions, make decisions, anocate
	CC6.2 Ability to work with consumer
	GC0.3. Addinity to work with consumer
	requests.
GC/. Cultural awareness and self-	GC/.1. The ability to show ideological,
expression	civic and moral positions.
	GC/.2. The ability to be tolerant of the
	traditions and culture of other peoples of the
DDOFESSIONAL COMPETENCIES	world, to possess high spiritual quanties.
Theoretical knowledge and prostical	PC1_canaral professional
shills aposifie to this field	the shility to mutually acardinate various
skins specific to this field	- the ability to mutually coolumate various
	various forms of knowledge and skills in the
	davalopment of design solutions, coordinate
	interdisciplinary goals think creatively
	initiate innovative solutions and perform
	leadership functions in the project process
	Perform reference samples of the design and
	decor object
	PC2 Artistic and creative competencies
	- the ability to create a unique creative using
	your talent artistic taste and the necessary
	techniques independently and in co-creation
	To carry out the process of design design
	taking into account modern trends in the
	field of textile design and decor.
	PC3. production-technological activities in
	textile production.
	-have an idea of the technology and the
	production of fibers from natural raw
	materials, be able to skillfully make
	technological transitions to obtain natural
	textile fibers, know the types of materials
	and equipment used, the types of defects

that occur when each process and operation
is incorrectly performed: to know the ways
of rational use of wool and cotton: have an
idea of the new technology and technology
in the mine mean reason of material filters
in the primary processing of natural fibers.
PC4. efficient usage of raw materials and
equipment
-apply mathematical models to optimize the
composition of the mixture of fibers in the
design of the properties of yarn. Know the
stages of designing parameters and spinning
technology, methods for designing
parameters of individual processes and their
combination in production, ensuring the
production of yarn of a given quality with
good technical and economic indicators.
PC5. management processes and
organization in textile production
- to know the structure and operation of
modern spinning equipment, technological
processes for the production of yarn from
natural and chemical fibers, types of yarn
defects, their causes and methods of
elimination; know the range and purpose of
the melange yarn from natural and chemical
fibers, know new ways of melanging; have
the skills to choose the raw materials and
compile sorts for the production of melange
yarn.
PC6. information technology
-analyze the causes of occurrence and
eliminate defects in the produced yarn;
develop technological and technical
specifications for the range of produced
varn: understand the types of automatic
control systems, the usage of robots and
micro processor technology.
PC7. research activities
-analysis of the state and dynamics of
quality indicators of objects of activity (raw
materials, varn. fabric knitwear
nonwovens, technological processes) using
the necessary methods and means of
research.
105041011,

	LO 1	LO 2	LO 3	LO 4	LO 5	LO 6	LO 7	LO 8	LO 9	LO 10	LO 11	LO 12
CC 1	+											
CC 2		+										
CC 3					+			+	+			
CC 4			+									+
CC 5							+				+	
CC 6							+			+		
PC 1		+				+			+			
PC 2				+	+		+					
PC 3				+		+	+					
PC 4			+		+			+				
PC 5			+				+				+	
PC 6				+		+				+		+

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

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

N⁰	Module	Cycle	UC/OC	Component	Brief course description	Number	•	¢	Рорм	лиру	емы	е резу	льт	гаты	і обуч	ения ((коды))
	name			Name		of	PO1	PO2	PO3	PO4	PO5	PO6 I	PO 7	PO8	PO9	PO10	PO11	PO12
						credits												
1	Module of	GED	OC	History of	It allows us to classify the conceptual	5		v										v
	the social			Kazakhstan	foundations of the National History, interpret													
	science				the origins, continuity of the Kazakh													
					statehood and current problems of the history													
					of modern Kazakhstan. Analysis of the													
					activities of the national intelligentsia in the													
					formation of the ideology of the liberation													
					movement and the stages of socio-economic													
					modernization of Kazakhstan. To													
					characterize the creation of a democratic state													
					governed by the rule of law.													
		GED	OC	Philosophy	The basics of the emergence of philosophy	5												v
					are considered, the peculiarities of the													
					emergence of the culture of thinking are													
					revealed, the concepts of "philosophy"													
					"worldview", the essence and content of the													
					concepts of "being", "consciousness"are													
					revealed. The relationship between the													
					concepts of "cognition" and "creativity" is													
					considered, the essence and content of the													
					category of philosophy of freedom are													
					revealed, the skills of identifying the essence													
					of a philosophical problem, critical thinking,													
1					and the skills of studying philosophical													
					aspects, problems of practice and cognition													

				are developed.							
Module of Socio- political Knowledge	GED	OC	Social and Political Studies	It studies the theories of sociology, the social structure and stratification of society, explains the role and place of politics in society, examines the main stages of the formation and development of political science, including youth policy, the role of politics in the system of public life, reveals the essence of the state, reveals the relationship between the state and civil society. They develop the skills of sociological research, analysis of socio- political information	4						v
	GED	OC	Cultural Studies and Psychology	Understanding the social and ethical values of society as a product of integration processes in the systems of basic knowledge of the disciplines of the socio-cultural and psychological module; analyze the features of psychological institutions in the context of their role in the modernization of Kazakhstan's society;form programs for resolving conflict situations in society, including in professional society; be able to correctly express and defend their own opinion of social significance	4						v
Module of Socio- ethnic Developme nt	GED	HSC	Ecosystem and Law	Formation of integrated knowledge in the field of economics, law, anti-corruption culture, ecology and life safety, entrepreneurship, scientific research methods. Fundamentals of safe human- nature interaction, ecosystem and biosphere productivity. The entrepreneurial activity of society in conditions of limited resources,	5	v					v

				increasing the competitiveness of business and the national economy. Regulation of relations in the field of ecology and human						
				life safety. Knowledge and compliance of Kazakhstan's law obligations and						
				guarantees of subjects, state regulation of						
				public relations to ensure social progress.						
				Application of scientific research methods.						
	BD	EC	Actual Problems and	The concept, features, role and significance of national consciousness. The concept and	3	v				v
			Modernization	significance of competitiveness, pragmatism,						
			of National	state-legal ideology, national identity, the						
				development of Kazakhstan Know the						
				ideological and spiritual basis for the						
				consolidation of Kazakhstan's society in the						
				context of the state program "Rukhani						
				Zhangyru»;						
	BD	EC	Mukhtar Study	The main dates of the life and creative		v				v
				activity of Mukhtar Auezov. Formation of the concept of the meaning and role of the						
				science of mukhtartanu in the Kazakh						
				literature. The role and significance of						
				Auezov's works in Kazakh literature.						
				Formation of knowledge and thinking of						
				students by deepening their understanding of						
				the work of M. Auezov.						
				Know the concepts of the meaning and role of science multiplation in Kazakh literature						
	BD	EC	Abay Studies	Analyze the contexts of history and culture		v				v
			They Studies	taking into account the main methodological		·				·
				directions, the contexts of culture and socio-						
				historical experience, taking into account the						

					evolution of artistic consciousness and the specifics of the creative process. Possess the skills of analytical reading of works of art, which involves the vision of the problems and the identification of the main artistic means of a particular text.							
Mod	lule of C	GED	OC	Kazakh	The article considers the development of	10	v					
Com	munic			(Russian)	cognitive and communicative activities in the							
atio	n and			Language	Russian (Kazakh) language in the areas of							
Phy	/sical				interpersonal, social, and intercultural							
Eau	cation				discussing othical cultural and socially							
					significant norms in discussions the ability							
					to work in a team. interaction in a team.							
					flexibility, and creativity; the development of							
					practical skills in interpreting text							
					information, explaining their style and genre							
		~			specifics in various areas of communication.							
	C	JED	OC	Foreign	The study of methods and techniques of	10	v					
				Language	structural-semantic and semantic-inguistic							
					how the information of the text develops to							
					see and build its logical and compositional							
					basis. Be able to extract the necessary							
					information from the text, describe it,							
					summarize and interpret it for use in the							
					process of educational, professional, business							
			00		and everyday communication.	0						
	C	JED	UC	Physical Training	Formation of physical culture of the individual and the ability to use a variety of	ð						v
				Training	means and methods of physical culture							
					sports for the protection and promotion of							
					health, psychophysical training and self-							

				preparation for future life and professional activity. Use the acquired knowledge and skills in practical activities and everyday life to improve performance, maintain and strengthen health.							
	BD	HSC	Professional Kazakh (Russian) Language	Formation of the communicative competence of a specialist who is able to solve the actual problems of communication in the field of professional activity by means of the Kazakh, (Russian) language. Knowledge and ability to correctly interpret statements of scientific, business, and journalistic styles on current topics in the field of professional activity.	3	v					
	BD	HSC	Professionally Oriented Foreign Language	It examines the teaching of technical terms and expressions by specialization; understand colloquial speech of medium complexity on technical topics; use a foreign language in practical classes; read technical texts of medium complexity without a dictionary and discuss them with the teacher; competently compose and write small texts of individual reports on technical topics and present them to the audience.	3	v					
	GED	OC	Information and Communication Technologies (in English)	Knowledge of computer systems, software. Development of skills in using information resources for searching and storing information, working with spreadsheets, working with databases. Application of methods and means of information protection; design and creation of websites, multimedia presentations. Skills in using e- government and e-textbooks, various cloud- based mobile technologies, SMART	5	v	V			v	

				technology management.								
Module of Bases of Natural Mathemati cal and Engineerin g Sciences	BD	ES	Mathematics	Elements of linear algebra and analytic geometry are considered. Develop the ability to calculate the limit of a function. Acquisition of knowledge of the differential and integral calculus of a function of a single variable. Knowledge of the concepts of functions of several variables. Argumentation of the optimal variant of solutions of differential equations. Skills in finding multiple integrals. Acquisition of theoretical knowledge on the theory of numerical, functional and power series and their convergence.	5	v	v					
	BD	ES	Physics	Formation of students ' basic scientific thinking, physical concepts and theories. Evaluate the degree of reliability of the results of theoretical and experimental studies, plan a physical and technical experiment and process its results using the methods of dimension theory, similarity theory and mathematical statistics. Students will learn how to formulate and select algorithms for solving specific problems from various fields of physics.	4	v	v					
	BD	ES	Chemistry	It examines the basic laws and concepts of chemistry, the structure of matter and the atom, the types of intra-and intermolecular bonds, the patterns of chemical reactions, the energy and kinetics of chemical processes, solutions and dispersed systems, and electrochemical processes. Handle chemical reagents, instruments and equipment,	4	v						v

			perform mathematical calculations, plan and conduct the necessary experiment.								
BD	ES	Textile Machine Parts	The processes of changing and converting energy in mechanical systems are examined; mechanical systems are calculated for strength under various types of force action; structural analysis of mechanisms is carried out; calculations of machine parts are performed using reference material and independently design machine parts for the required purpose according to the specified data.	4			v	*			
BD	ES	Theoretical and Applied Mechanics	Mastering the main provisions of theoretical mechanics. Formation of scientific engineering thinking, that is, the ability to see in each mechanical system its design model. Make design schemes for structural elements, have an understanding of the application of the laws and principles of mechanics for the analysis of mechanical processes of formalized material systems				v	v			
BD	ES	Engineering Computer Graphics	The main provisions of descriptive geometry, engineering graphics, practical implementation of general technical and specialized drawings in accordance with GOST, skills of working with modern computer programs in the environment of computer-aided design AutoCAD, 3D modeling are considered. Skills in reading technical drawings.	4		v					
BD	ES	Bases of Mathematical Modeling of	Fundamentals of mathematical modeling of technical processes is the formation of students ' competencies in the process of	4	v	v					

			Technological Processes	forming the ability to navigate the flow of information in the conditions of continuous development of science and technology, to learn how to use computer modeling to explain technological processes									
	BD	ES	Standardization , Certification and Metrology	It examines the systems of technical regulation, standardization, ensuring the uniformity of measurements, legislative and regulatory documents, types and categories of standards; application of standardization methods, certification schemes, requirements of technical regulations of the CU/Evra ES; analyzes compliance with the requirements for standardization, certification, metrological norms and rules by market participants; evaluates the economic efficiency of work on interstate and international standardization, certification, metrology	4						v	v	
	BD	ES	Technical regulation and standardization	It examines the systems of technical regulation, standardization, ensuring the uniformity of measurements, legislative and regulatory documents, types and categories of standards; application of standardization methods, certification schemes, requirements of technical regulations of the CU/EvraES; analyzes compliance with the requirements for standardization, certification, metrological norms and rules by market entities; evaluates the economic efficiency of work on interstate and international standardization, certification, metrology							v	v	
Module of	BD	ES	Introduction to	know the relevance and prospects of using	4		T		T	v			v

Bases			the Specialty	extile materials and products in a market								
specialty				conomy; Have an idea of your future								
				rofession, the types of textile enterprises and								
				wide range of textile materials and products.								
				Apply in practice technical means for								
				neasuring quality indicators to obtain reliable								
				nformation about the properties of textile								
				naterials and products; The formation of								
				reative, creative thinking and the								
				evelopment of professional skills for the								
				evelopment of textile materials								
	BD	ES	Bases of	Skills of creative writing of written works					v			v
			Academic	(essays, reports, term papers, theses) using								
			Writing	existing knowledge in the field of textile								
				materials research, taking into account the								
				generally accepted requirements for the								
				structure of text construction, the choice of								
				presentation style, and design using								
				scientific literature. The ability to logically								
				correctly, argumentatively and clearly build								
				oral and written speech, including in a								
				foreign language.								
	BD	ES	Текстильное	The range of textile materials for the	6		^	v				
			материаловеде	manufacture of textile and light industry								
			ние	products, new types of fibers and threads:								
				heat-resistant, non-flammable, high-modulus,								
				and others. Study the structure and properties								
				of fibers and threads. Assortment and quality								
				assessment of fibers and threads, fabrics,								
				knitwear and nonwovens.			 					
	ChD	ES	Textile	Know all types and properties of textile			 r	v				
			Materials Study	materials, their structure; - fundamentals of								
				the spinning processes of natural and								

				chemical fibers; - basics of weaving and knitting production; - fundamentals of nonwovens production. Ability to make technological schemes of textile production processes; To choose the technological chain of equipment taking into account: the development of a given product range; calculation of speed modes and machine performance; technological transitions of textile production. Independently determine the technological parameters of the main processes of spinning, weaving, knitwear and nonwovens;							
	ChD	ES	The Technology of Primary Processing of Textile Raw Materials	Cotton gins and schemes of technological processes of primary processing of textile raw materials. Technical control at the cotton gin plant and cotton harvesting point. Equipment of auxiliary technological workshops. To study the sequence of technological processes for producing textile fibers. Use reference literature when determining the physical and chemical properties of textile raw materials; know the modes of primary processing of textile raw materials	5		v	v			
	ChD	ES	Bases Pproduction of Textile Raw Materials	Know the modes of primary processing of textile raw materials; calculation of equipment for primary processing of textile raw materials. Definition by (standards), standards for the classification of textile fibers To study the mechanization of labor- intensive work and automation of production			v	v			

				processes. Justify the basic rules of safety and fire prevention measures. Consider the optimal process for processing textile fibers									
	BD	HSC	Educational Practice	Familiarization with the main activities of the student in various structures of the textile enterprise, training in the methods of searching and collecting information on the topic of interest with the help of information and bibliographic manuals. Have an idea about your future profession, about the types of textile enterprises. Know the safety regulations for those working in the textile industry.	2		v		v		v		
Module of Technolog y and Equipment s of Textile Production	BD	EC	Technical Documentation of Textile Products	The main regulatory documents that form the basis of regulatory support for textile production. Laws, state standards, technical regulations, rules and recommendations, standards of the unified system of design documentation, the unified system of technological documentation, product classifiers. List the main regulatory documents that form the basis of regulatory support for textile production;	4	v				v			
	BD	EC	Normative and Technical Documentation in the Quality Management of Textile Products	The main issues of implementation and further development of standards and processes, criteria for evaluating the effectiveness of their application in the textile industry. solve problems of typification and unification of production processes of textile materials, check the compliance of product quality indicators with the established requirements of regulatory documentation; consider the types and categories of standards		v				v			

				and analyze them on the basis of technical documents								
	BD	EC	Production Technology of Natural and Chemical Fibers	The role and importance of natural and chemical fibers in the national economy and the most recent achievements in engineering and technology. Assortment of natural fibers. Technology of production of fibers of plant origin. Production processes of bast and coarse-stemmed fibers. Technology for the production of animal fibers. Possess standard methods of physical and chemical analysis of natural and chemical fibers	5		v					
	BD	EC	Production Technology of Fiber-forming polymer	Review of the latest achievements in the technique and technology of production of fiber-forming polymers. The main types and classification of fiber-forming polymers. The main technological processes of the production of artificial fibers. Structure and test methods of chemical fibers. Physical and chemical properties of fiber-forming polymers. Discuss modern technological processes for the production of chemical fibers and recommend optimal methods taking into account the specified production conditions			v					
	BD	EC	Technology of Spinning Production	General scheme of spinning production. Spinning systems. Processes carried out on the baking-cleaning unit. Selecting fibers and moving fibers between machines. Mixing of components. Flapping of the fibrous mass. Preparation of the carding tape. Belt machines of the world's leading manufacturers. Preparation of the combed	4		v	v	v			

		t C I I S	tape. Methods of spinning. Compare the quality of the finished product for compliance with the technical requirements provided for in the standards and technical specifications							
BD	EC	Spinning of I Cotton and S Chemical Fibers	Features of modern pneumomechanical spinning machines. Rotary spinning. Aeromechanical spinning. Friction spinning. Spinning wool. Wool spinning systems. Spinning machines for wool. Production of yarn from bast fibers. Spinning flax. Processing of chemical fibers and yarns. Production of textured threads. Product quality control. Determine the parameters that affect the quality of the finished product		v	v		v		
BD	EC	Mechanical Technology of Textile Materials t	Fundamentals of knowledge on the study of processes and equipment that ensure the production of yarn, twisted yarns, fabrics, knitwear, non-woven and other textiles and the formulation of conclusions when performing practical work in a group and individually. Determine the interweaving of textile materials and products, the direction of the warp and weft threads in the fabric	6	v		v	V		
BD	EC	Technology I Equipment of y the Industry I I t	Production of yarn and yarns. Preparation of yarn for weaving. Structure and analysis of the tissue. Weaving - the formation of fabric. Knitwear production. Independently perform technological calculations to determine the physical and mechanical characteristics of yarn, fabric, knitwear and linen, the consumption of yarn and threads, the			v	v	v		

				geometric characteristics of yarn								
Module of General Technolog y and Service of Textile Production	BD	EC	Technology of Textile Production	Basic knowledge of processing of fibers of vegetable, animal and other origin, production and finishing of fabrics, knitwear and nonwovens, as well as the study of processes and equipment for the production of yarn, fabric, knitwear, nonwovens. Choose the desired structure of the fabric, as well as determine the conditions for its production on the loom	6		v	v	v			
	BD	EC	Innovative Technology of Textile Production	Know the development of the trends of innovative textile production technologies. 3D printing-getting the finished model from a special printer. Three-dimensional design technology. Creation of environmentally friendly technologies for dyeing and processing textile materials, using modern wastewater treatment systems. The formation of students to conduct purposeful research on the creation and artistic shaping of innovative textiles. Know the properties of innovative materials, systematize and classify the types of modern textiles and other fabrics in accordance with the areas of their use.			v	v	v			
	BD	EC	General Technology of Cotton Production	To discuss in the group modern technologies of cotton production; to consider the main properties of cotton fiber and the relationship between the properties of natural fiber; to analyze the economic effect in the production of cotton fibers; to classify the technologies of cotton production; to explain the general technology of producing cotton materials.	4				v			

	BD	EC	Bases of	Consider the assortment of textile materials				v		
			Knitwear and	for the manufacture of textile and light						
			Nonwovens	industry products; determine the structure						
			Technology	and properties of textile materials in						
				laboratory conditions; Discuss the latest						
				achievements in the technology and						
				technology of production of knitwear and						
				nonwovens; know the production processes						
				and methods for obtaining knitwear and						
				nonwovens; The main technological						
				processes for the production of knitwear and						
				nonwovens.						
	ChD	EC	Bases of	New in the technique and technology of	4			v	v	
			Resource-	spinning. Design features of modern carding,						
			Saving	roving, ring-spinning machines. Belt						
			Technologies	machines from leading manufacturers.						
			of Textile	Modern machines for the preparation of						
			Production	canvases. Foreign combing machines.						
				Features of modern pneumomechanical						
				spinning machines. Progressive ways of						
				spinning. analyze the composition of						
				regenerated spinning waste used for the						
				production of medical gauze in order to						
				comply with the quality indicators of cotton						
		FG		fiber						
	ChD	EC	Generl	Describe the technological process of				v	v	
			Technology of	spinning Weaving production. Preparation of						
			lextile	yarn for weaving. Structure and analysis of						
			Materials	the tissue. Weaving - the formation of fabric.						
				Knitwear production. Structure and						
				properties of knitwear. Loop formation						
				processes. Production of single knitwear and						
				basic knitwear. Production of double cross-						

				knit knitwear. Production of hosiery. Production of nonwovens. Product quality management.									
	BD	EC	Service and Operation of Textile Equipments	The current state of textile equipment enterprises. Specifics of technological processes of light industry enterprises. Organization of operation, repair and installation of equipment. Safety precautions for the maintenance and operation of textile equipment. Use methods of disassembly, assembly and installation of equipment, methods of adjusting the actuators of machines	5			v		v	v		
	BD	EC	Repair and Adjustment of Textile Machines	Technical characteristics of the equipment used in the weaving process. The main parts of the automatic loom: lamel, remiz, berdo Mechanisms of tension and supply of the base with navoi. Main brakes. Know the rules of operation and maintenance of the operated textile equipment and the safety rules of the main regulators. Worm main regulator. Wear of equipment parts, methods for detecting defects in parts.				v		v	v		
	ChD	HSC	Industrial Practice I	Have an understanding of technological processes, textile production equipment, the location of workshops and their relationship, product quality control, testing methods of textile materials and products, vehicles, economics, organization and management of production, standardization and quality control of products and technical and economic indicators of production.	4				v			v	v
Module of	ChD	EC	Assortment and	The range of threads for technical purposes;	4		v	v	v				

Assortment			Quality	the range, properties and evaluation of the								
, Design			Assessment of	quality of twisted yarn and threads. Justify								
and			Textile	the procedure for conducting quality								
Finishing			Materials and	assessment, the sequence of operations for								
of Textile			Products	the formation of an average sample,								
Materials				determining the quality indicators of fabrics								
and				and fabrics; identify defects and damage to								
Products				goods, establish and								
	ChD	EC	Assortment	Classification of multicomponent textile			v	v	r			
			Mobility of	threads. Promising directions for expanding								
			Textile	the range of multicomponent textile yarns.								
			Production	Analysis of new technological processes for								
				obtaining multi-component yarns. Know the								
				range of products for which the designed								
				yarn is intended and summarize the								
				knowledge of resource-saving technologies								
				in the textile industry. Development of a								
				method for predicting the breaking load of								
				yarn obtained by the ring spinning method.								
	BD	EC	Design and	The origins of the textile ornament, the	5				r			v
			Projecting of	design of the "art textile" ornament, the								
			Textile	basics of the construction of the ornament								
			Materials	and the development of the artistic design of								
				the textile pattern, the automated method of								
				designing drawings using. Choose								
				harmonious combinations of colors when								
				designing textile materials, independently								
				design the ornament of textile materials								
	BD	EC	Artistic	General issues of decoration of textile					r			v
			Decoration of	products. Definition of the concept of								
			Textile	"design". Drawing of the design orientation.								
			Materials and	Modern representation and design of textile								
			Products	drawing. Product range and quality.								

				Properties of fibrous materials, coloring substances intended for textile products. Rules for building a rapport composition. Apply the general rules of competent composition construction based on the use of visual means of graphics								
	ChD	EC	Finishing and Dyeing of Textile Materials and Products	To justify the sequence of location of the main and auxiliary equipment of finishing production; to evaluate the influence of various technological factors on the quality of coloring of products; to use technical means and methods to measure the main parameters of the technological process, the properties of raw materials and products: to	5		v	v				
	ChD	EC	Chemicalizatio n of Technological Processes of Textile Production	The main directions of chemicalization of technological processes of the textile industry, polymer materials and fibers used in the manufacture of textile products; to justify the composition of chemicals for the chemicalization of textile products and materials; to observe safety precautions when working with chemicals; to consider technological parameters for the chemicalization of textile materials and products;			v	v				
Design of Textile Materials and Production module	ChD	EC	Design of Fibrous Materials	Parameters of the structure of fibers and yarn. General and additional indicators of the quality of fibers and yarn. The range of yarns and types of fibers used in cotton spinning. Design of the composition of fiber mixtures and cotton spinning technology for all technological processes. Know the methods	4		v		v	v		

				of designing fibers and yarns according to the specified parameters and properties of fibers and yarns									
	ChD	EC	Design of Yarns and Threads	Increasing the yield of yarn without compromising its quality by improving the efficiency of fiber cleaning processes, the effect of fiber properties on yarn properties, the spinning ability of the fiber; yarn yield from the mixture; properties of yarn from				v	v	v			
				fibers of various origins; mixing; preparation of single yarn; spinning machines; Perform all stages of technological design and calculation of parameters of textile products									
	ChD	EC	Design of Cotton- Spinning Factories	The concept of choosing the place of construction of enterprises. Technical and economic indicators of plants for the primary processing of fibers and yarn, and their analysis. General design scheme of cotton spinning production technology. Is able to select and apply advanced resource-saving technologies aimed at reducing the operations of technological processes, the consumption of raw materials, increasing labor productivity and be able to choose the optimal solution	5		v				v		v
	ChD	EC	Design of Mills for Primary Processing of Natural and Chemical Fibers	The use of chemical fibers mixed with natural fibers in order to improve the consumer properties of textiles. Technological processes of production of melange yarn. Technological processes of production of flax-containing yarn. The use of new methods of forming multicomponent yarn. Evaluation of the quality of			v				v		v

				heterogeneous textile threads.Have fixed theoretical and practical knowledge gained in the study of the disciplines of specialization								
Module of Modern Technolog es and Ecological Problems of Textile Production	ChD	EC	Ecological Safety of Textile Production	Calculate the maximum permissible concentrations of harmful substances contained in the air in textile production. Study the process of industrial wastewater treatment and disposal. Review of modern methods of environmental certification of textile products and environmental labeling in the textile industry.	5				v	v		
	ChD	EC	Ecological Problems of Weaving Production	Describe the current environmental problems of the textile industry. Justify measures to prevent harmful emissions and environmental pollution by improving technological processes. Calculate the proportion of dust on the technological process and the principle of operation of the equipment. Substantiate the methods of wastewater treatment: neutralization, oxidation, reduction and removal of heavy metal ions.					v	v		
	ChD	EC	Modern Technologies of Textile Fibers	Dynamics of the development of the production of chemical fibers. Release at the turn of the third millennium.General-purpose fibers and filaments. Modified types of fibers.Fire-proof fibers. High-strength technical threads. To study the development of multi-tonnage types of fibers and yarns, the production of medium-and low-tonnage chemical fibers. Heavy-duty and ultra-high- modulus initi fibers. Heat-resistant and flame-resistant fibers based on aromatic polymers.	5			v			v	

	ChD	EC	Innovative	Purpose, range and use of twisted textiles, the				v		v		
			Technology of	influence of the intensity of twisting on the								
			Spinning	properties of yarn. Analyze the work and								
			Production	feasibility study of the advantages of								
				innovative twisting equipment, double-								
				twisting methods, reels, utopia of self-								
				twisting yarn fixing methods. Theoretical								
				analysis of the principle of two-stage torsion,								
				analysis of the operation of machines of a								
				two-stage yarn torsion system								
Module of	ChD	EC	Optimization	Types of optimization and intensification	5		v		v			
Planning			and	tasks. Intensification of the main processes of								
Technologi			Intensification	textile production. Ensuring the efficiency of								
cal			of Spinning	technological processes of textile production								
Processes			Production	The main directions of scientific and								
of Textile			Processes	technological progress in weaving:								
Production				automation of production, the use of high-								
				speed machines, the use of large packages,								
				the creation of fundamentally new processing								
				methods and machine designs, etc. List and								
				explain the methods of intensification of								
	<i>a</i> 1 <i>b</i>			technological processes		_				 		
	ChD	EC	Optimization	Intensification of the main processes of			v		v			
			and	production of natural and chemical fibers and								
			Intensification	yarns. Ensuring the efficiency of								
			of Natural and	technological processes of production of both								
			Chemical	natural and chemical fibers, and yarn, their								
			Fibers	mutual influence on the quality of finished								
			Production	products. Intensification of the technological								
			Processes	fibers and vern on modern equipment								
				Derform optimization of mechanical and								
				technological processes								
				technological processes								

ChD	EC	Optimization and Intensification of Weaving Production Processes	Purpose, range and use of twisted textiles, the influence of the intensity of twisting on the properties of yarn. Analyze the work and feasibility study of the advantages of innovative twisting equipment, double- twisting methods, reels, utopia of self- twisting yarn fixing methods. Theoretical analysis of the principle of two-stage torsion, analysis of the operation of machines of a	5		v	v				
ChD	EC	Computerizatio n of Technological Processes of Textile Production	two-stage yarn torsion system. Computer technology in the textile industry. Automatic systems of primary processing of raw materials of fibers. Computer calculation of the composition of complex yarn. Digital technology in determining the structure and analysis of yarn. Analysis of yarn hairiness. Manage the yarn manufacturing process using computer programs Analysis of the composition of mixed yarns. Determination of yarn quality on digitally controlled devices. Software tools for computer			v	v				
BD	ES	Scientific Research Work	Types of research work in the textile industry. The main features of the mechanical and technological processes of research. Stages of research work. Know the basic concepts, terms and their definitions in the field of commodity science of textile and knitted goods; factors that form and preserve quality; the nomenclature of consumer properties and quality indicators; the main procedures for the control and examination of the quality of textile and knitted goods	6					v	v	

	BD	ES	Experimental	Choosing a topic for research work.							v	v	
			Research Work	Preparatory stage of research.Preliminary									
				experiment. Preparation and conduct of a									
				preliminary experiment. Tasks of primary									
				processing of the results of the preliminary									
				experiment.Independently use testing									
				equipment, measuring instruments and in the									
				control and examination of the quality of									
				textile and knitwear products									
	ChD	HSC	Industrial	The student must understand the goals,	6						v	v	
			Practice II	methodology and methods of professional									
				activity of the technologist, be able to									
				organize, conduct and control the									
				technological process at the enterprises of the									
				textile industry, carry out the formulation and									
				solve design, operational experimental and									
				research tasks, be able to independently									
				control and analyze the technological process									
				at the enterprises of the textile industry;									
				Consolidate the theoretical and practical									
				knowledge gained by students in the study of									
				the disciplines of specialization.									
Module	BD	ES	Subjects in the	Students acquire knowledge about the main	12		v	v			v		
acquisition			Additional	existing methods of hand-painting fabrics in									
of new			Educational	the batik technique and further apply them in									
professiona			Program	their creative activities. Identification of									
1				individual creative abilities of students,									
competenci				development of their imaginative thinking									
es				and imagination, as well as improvement of									
				their aesthetic taste and artistic culture.									
Module of	ChD	HSC	Pre-Degree or	Methodologically correct representation of	8			v			v	v	
Final			Industrial	the structure and importance of textile									
Attestation			Practice	industry enterprises; describe the production									

		process of the enterprise; discuss with the head of the practice the use of improved methods and modern equipment at the enterprise to obtain high-quality textile products; analyze the current state of the textile industry in the country and abroad;								
	Writing and Defending a Thesis a Graduate Wo or Preparing and Passing Comprehensiv Exam	Choose the research methodology, find a solution to the problems and questions tha have arisen with your own responsibility kexplain the applied technological processes for the production of textile materials and a products, advantages and disadvantages re consider the task, identify the problem and formulate the task of the thesis;			v			v	V	v
Total			240							

5. Summary table reflecting the volume assimilated credits of education program modules

ıdy		The number of mastered modules	The number of studied disciplines			Number of KZ credits					Total	dits oonent	The number of		
Course of Stu	Semester		Compulsory	University	Optional comnonent	Theoretical training	Physical education	Уче бна я пра кти ка	Производст- венная, преддиплом ная практика	Итоговая аттестация	hours Comp ulsory compo nent	Total KZ cree University comp	Optional component	Theoretical training	
1	1	3	3	2	1	28	2				900	30	6	1	
	2	3	3	2	1	26	2	2			900	30	6	2	
2	3	5	3	2	1	28	2				900	30	6	2	
	4	5	-	1	4	24	2		4		900	30	5	2	
3	5	5		-	6	30					900	30	6	-	
	6	3			5	24			6		900	30	3	1	
4	7	4			4	20					600	20	4		
	8	2		-	4	20					600	20	4	-	
	9					-			8	12	600	20		1	
Total		31	9	7	26	200	8	2	18	12	7200	240	40	9	

6. LEARNING STRATEGIES AND METHODS, MONITORING AND EVALUATION

Learning strategies	Student_centered learning. The student is the center of
	teaching/learning and an active participant in the
	learning and decision-making process
	Practice-oriented learning focusing on the development
	of practical skills.
Teaching methods	Conducting lectures, seminars, various types of
	practices:
	• using innovative technologies:
	• problem-based learning:
	• case study;
	• work in a group and creative groups;
	• discussions and dialogues, intellectual games,
	olympiads, quizzes;
	• reflection methods, projects, benchmarking;
	Bloom's taxonomies;
	• presentations;
	• rational and creative use of information sources:
	• multimedia training programs;
	• electronic textbooks;
	• digital resources.
	Organization of independent work of students,
	individual consultations.
Monitoring and evaluation	Current control on each topic of the discipline, control
of the achievability of	of knowledge in classroom and extracurricular classes
learning outcomes	(according to syllabus). Assessment forms:
	• survey in the classroom;
	• testing on the topics of the discipline;
	• control jobs;
	• protection of independent creative works;
	• discussions;
	• trainings;
	• conoquiums,
	Boundary control at least twice during one academic
	period within the framework of one academic
	discipline
	Intermediate certification is carried out in accordance
	with the working curriculum, academic calendar.
	Forms of holding:
	• exam in the form of testing:
	• oral exam:
	• written exam;

• combined exam;
• project protection;
• protection of practice reports.
Final state certification.

7. EDUCATIONAL AND RESOURCE SUPPORT OF THE EP

Information	Resource	Information and educational portal "PROFESSOR"
Center		www.portal.ukgu.kz , provides information about the
		educational process at SKU. Thanks to an effective
		search system, it is possible to obtain information
		related to the student personally, such as lists of classes,
		exam schedules for semesters, academic performance,
		UMKD of the current semester, and in general for the
		university (data on faculties, teachers, etc.).
		Library web site http://lib.ukgu .kz is an indicator of the
		level of information service. The reference and
		bibliographic apparatus of the library, bulletins of new
		arrivals, novelties of publishing houses, virtual
		exhibitions, news feed and other services are widely
		presented on the site. Thematic conections of internet
		teachers. For teachers students there is a section
		"Information for scientists" which presents the
		requirements for educational scientific and reference
		publications in accordance with GOST standards: rules
		for the design of literature lists: a list of periodicals and
		scientific and technical publications of the Republic of
		Kazakhstan, recommendations for determining the
		citation index.
		A modern reference and bibliographic apparatus is
		provided to the services of users: an electronic catalog,
		an electronic file of articles, an electronic file of
		dissertations abstracts. Work with catalogs is carried
		out in two types: electronic and traditional (card). The
		total volume of the electronic catalog is 151513
		bibliographic entries. The electronic catalog of the OIC
		is presented on the website http://lib.ukgu.kz.
		For university users, the Educational and information
		databases of its own generation: "Works of the teaching
		staff of M Auezov SKSU" "Electronic Archive"
		"AlmaMater" etc which since 2017 for the
		convenience of searching combined into a single search
		engine. On-line access to databases is open
		"SpringerLink", "Scopus", "Envoy". "Thomson Reuters
		ISI Web of Science", "ScienceDirect", "EBSCO", to
		Kazakhstan databases: "KazPatent", "Epigraph", "Zan",
		"RMEB".
Material and tech	nical base	The educational program 6B07260 "Technology and